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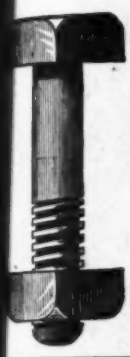
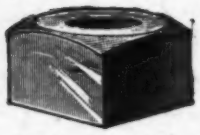
The American Artisan
THE HARDWARE RECORD

Volume 43.—No. 2. CHICAGO, JANUARY 11, 1902. $2.00 Per Year.

Columbus Bolt Works,
Columbus, O.

Bolts,
Nuts,
Washers,
Turn
Buckles,
Bridge and Roof Rods
and
Bolts
ALL KINDS OF CARRIAGE FORGINGS. ON APPLICATION.
CATALOGUE

"Sampson Brand" **PURE ASPHALT ROOFING**
Never Dries Out or Cracks. Planet Brand Tarred Ready Roofing, Slaters' Felt, Building Papers, Roofing Cements, Paints, Etc.
Write us for Prices **J. L. PERKINS & CO.,** 241 Lake St. CHICAGO

We make a full line of
Stove Bolts, Stove Rods,
Machine Screws,
Pointed Pins,
Threaded Wires,
Rivets,
Special Bolts,
Mica Bolts,
Cold Pressed Nuts.
Atlas Bolt & Screw Co.
CLEVELAND, O.

Independent Registers AND Ventilators.
Write us. Probably we can save you some money.
100 sizes.
Independent Register Co.,
158 Champlain St., CLEVELAND, OHIO.

A UNIVERSAL REMEDY FOR
LEAKY ROOFS.

The valuable qualities of a good roofing cement are firm adhesiveness and elasticity. These qualities the
AMERICAN SEAL BUILDERS' AND ROOFERS'
ELASTIC OIL CEMENT
possesses. It will adhere firmly to Slate or Metal and will not crack or crumble. It is especially recommended for repairing leaks around chimneys, dormer windows, skylights, scuttles, firewalls and any place that requires fixing on a roof, either Slate, Tin or Shingle.
This Cement will answer to repair a roof when Solder can not be used.
MANUFACTURED BY
Wm. Connors Paint Mfg. Co.
TROY, N. Y.
WESTERN AGENTS—J. L. PERKINS & CO.,
241 Lake Street, - - - CHICAGO, ILL.
STOCKHOFF SUPPLY CO., ST. LOUIS, MO.

Crying—to—do—business—without—advertising—is like—winking—at—a—girl—in—the—dark;—you—know—what—you—are—doing—but—nobody—else—does.

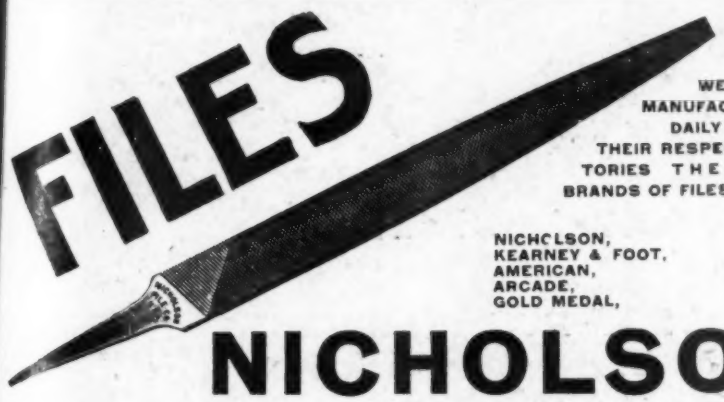
BRADLEY SHELF BRACKETS.
Strong, Light and All Right.
ATLAS MFG. CO., New Haven, Ct.

SAMSON SPOT CORD

Also Massachusetts and Phœnix Brands of Sash Cord.
Samson Cordage Works, Boston, Mass.

Black Diamond Files and Rasps.
PERFECT—ALWAYS
Twelve Medals Awarded.
At International Expositions.

G. & H. BARNETT CO.,
Black Diamond File Works. PHILADELPHIA, PA.



WE MANUFACTURE DAILY AT THEIR RESPECTIVE FACTORIES THE FOLLOWING BRANDS OF FILES AND RASPS:

NICHOLSON,
KEARNEY & FOOT,
AMERICAN,
ARCADE,
GOLD MEDAL,

GREAT WESTERN,
J. B. SMITH,
McCLELLAN,
EAGLE,
"X. F."

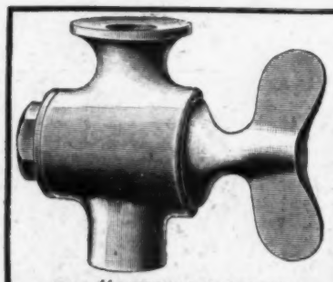
NICHOLSON FILE CO.
Providence, R. I., U. S. A.

BOILERS AND RADIATORS

A Postal Card from you will bring valuable, complete information in regard to the best, most comprehensive, strictly modern line of these goods.

WRITE US TODAY.
New York, Boston, Philadelphia, St. Louis, Buffalo, Minneapolis, Denver, Detroit, London.

AMERICAN RADIATOR COMPANY
Lake and Dearborn Sts., CHICAGO.



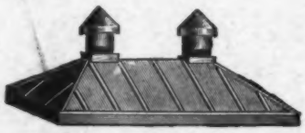
BEER,
MILK CAN,
OIL CAN,
CREAM SEPARATOR
FAUCETS.
Various Sizes and Styles.
MANUFACTURED BY
CLARK NOVELTY CO.,
ROCHESTER, N. Y.
Also Mfrs. of The CLARK Kerosene Oil System for Heating Soldering Coppers.

The "OMEGA," 2-3 Size.
To attach to bottom of can.

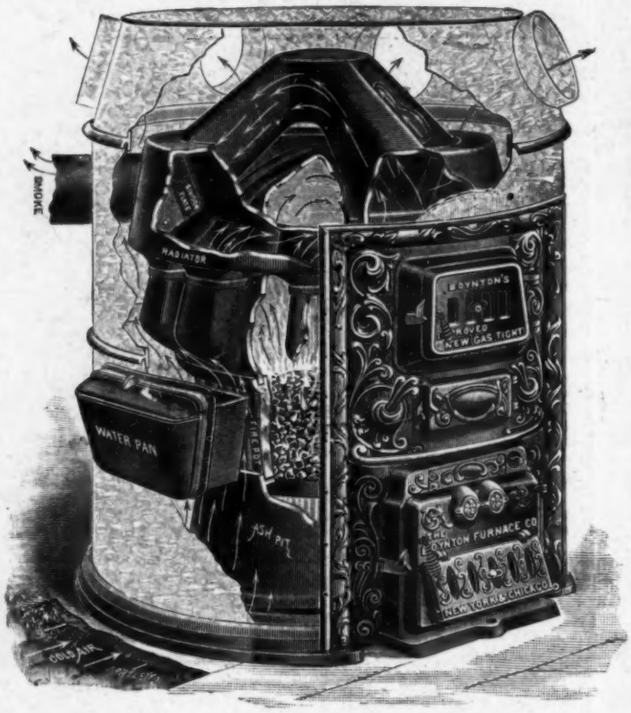
"Eagle" Brand Copper Rivets and Burrs.
STANDARD FOR QUALITY. (Lake Superior Copper.)
——MANUFACTURED BY——
THE PLUME & ATWOOD MFG. CO.,
29 Murray St., NEW YORK. 196 Lake St., CHICAGO, ILL.

"TABASCO" Water Heaters.

ALL STEEL, SELF-FEED, SHAKING GRATE.
FOR
Small Residences, Greenhouses, Flats, Hotels, Baptisteries, Bath Houses, any place a supply of hot water is needed.
SEND FOR CATALOGUE.
Kewanee Boiler Compa'y
Kewanee, Ill.
CHICAGO STORE:
167-169 E. Lake St., CHICAGO.



"The Illinois"
METALLIC SKYLIGHTS
Are known in every State. Have stood the test for years. Are made in 10 styles and 500 sizes. Complete Skylight, Cornice and Finial Catalogue mailed free.
J. H. JONES, Mfr.,
Lock Box 33. STREATOR, ILL.



1902 Will Be a Record Breaker for Heating Apparatus

Furnaces
Hot Water } Heaters
and Steam

Latest and Best } With All Improvements.

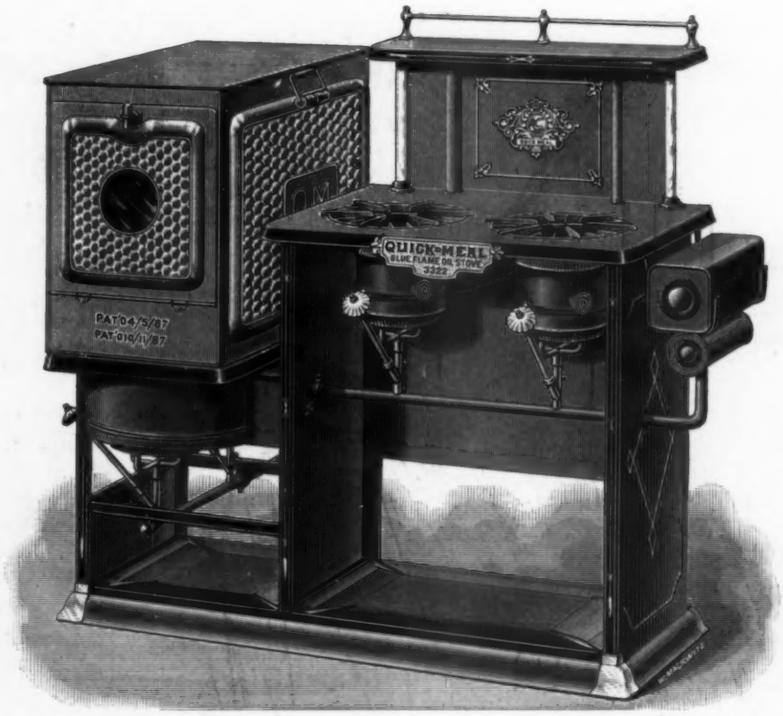
Largest Variety
Most Reliable
and Economical } A Postal will bring full descriptive Catalogs, Price Lists and Trade Discounts.

The Boynton Furnace Co.,
147-149 Lake St., CHICAGO.
207-209 Water St., NEW YORK.

QUICK MEAL

Wickless Blue Flame Oil Stoves.

THE STOVE THAT LEADS



A NEW and strong feature of the "Quick Meal" Wickless Blue Flame Oil Stove is its improved burners, which add to its simplicity, durability—and makes them easy to keep in clean condition. They are well made, attractive in Design and Finish. Only one valve to operate, which makes them easy to sell and easy for the user to understand.

P. S.--"Quick Meal" Steel Ranges have more good practical selling points than any other Steel Range.

RINGEN STOVE Co SAINT LOUIS

RELIABLE

Vapor Stoves and Ranges

have been greatly improved for 1902, and in the future, as in the past, they will be beyond the reach of all competition. Dealers who handle the RELIABLE line invariably control the vapor stove business of their city, as anyone examining these stoves can easily see that they are the best on the market. They never disappoint the user. Each stove sold will sell another! Testimonials of dealers who have handled them bear witness to their profit-making qualities.

Dealers should write us for a copy of our 1902 Vapor Stove Catalogue. Free for the asking.

The Schneider & Trenkamp Co.

Cleveland Chicago San Francisco

The Monarch Line

HAS NO EQUAL FOR 1902.

We have been forced to rebuild our plant from the ground up, and we have the

BEST EQUIPPED PLANT IN THE WORLD FOR THE MANUFACTURE OF **MONARCH GAS, GASOLENE AND OIL STOVES.**

Here are some of our Up-to-Date Trade Winners:

REGAL MONARCH CABINET RANGE

Oven as large as in a steel range oven. Has a capacity equal to the demands of the largest family. Not a toy.

MONARCH NEW METHOD

remodeled for 1902, and provided with an increased force of burner.

MONARCH CABINET FRAME JUNIORS

are the real thing.

Our New Catalogue will be issued Jan. 25. It is a peach, and we want you to see it.

The Monarch Stove & Mfg. Co.

MANSFIELD, OHIO, U. S. A.

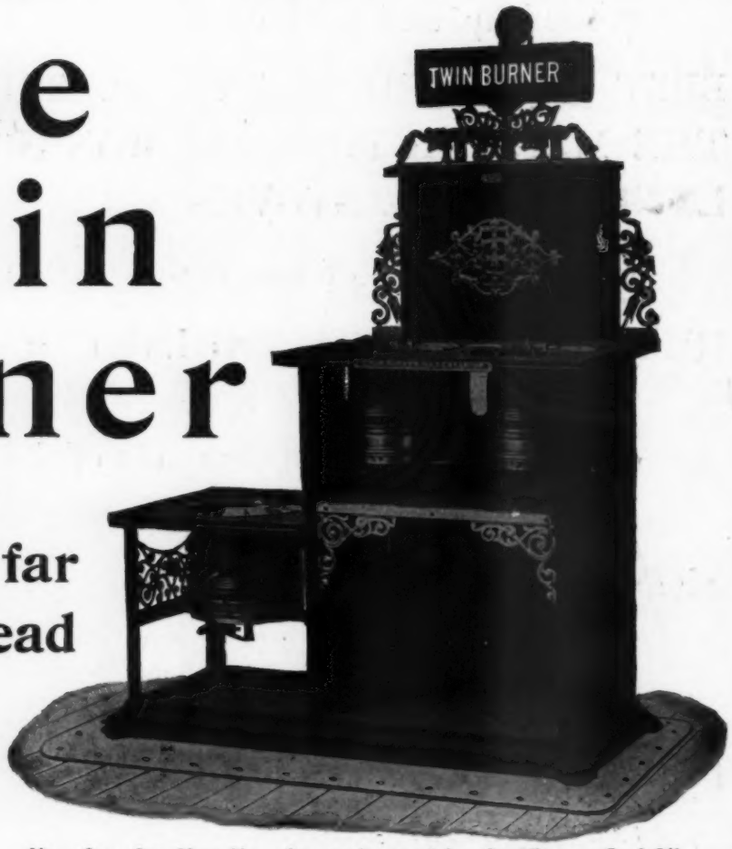
Agencies:

W. H. GRUENHAGEN, St. Paul, Minn.
CENTRAL SUPPLY CO., Des Moines, Ia.
BARTLETT & NORRIS, Lincoln, Neb.
NEWBY STOVE REPAIR CO., Kansas City, Mo.
H. R. BRUCE & CO., Cincinnati, Ohio.

1902

The Twin Burner

Line for the New Year is far and away ahead of anything yet shown in



No. 480. Our New No. 480 can be used for Gasoline or Coal Oil.

Gasoline and Oil Stoves.

GET OUR CATALOGUE. SENT FREE.

Twin Burner Vapor Stove Co.,

206-210 South Seventeenth St., - - ST. LOUIS, MO.

"Detroit" Vapor Stoves

STILL IN THE LEAD.

Burner Entirely Different

FROM ALL OTHERS.

Two Rings of Fire

Lights like gas. Perfect combustion.

They have demonstrated their superiority during past seven years.

All Styles and Sizes.

SEND FOR CATALOGUE No. 23.

The Detroit Vapor Stove Co.

DETROIT, MICH.

Sun Stove Company

MANUFACTURERS OF

The Celebrated Sun Stoves,
Gasoline, Oil and Gas Stoves,
Air Tight and Hot Blast Heaters,
Gasoline Lamps, Torches and Ovens.

1305 to 1319 Bellevue Ave.,
DETROIT, MICH.

Established 1874.
The largest and most reliable **Foundry Supply House** in the world.

THE
S. Obermayer Co.,
CINCINNATI, OHIO.
CHICAGO, ILL.
manufacturers
"Everything You Need in Your Foundry."
Importers and refiners
PLUMBAGO GRAPHITE.
Catalog Sent on Application.

The House Warming Manual

Contains the Essays on Warm Air, Hot Water and Steam Heating, submitted in

THE AMERICAN ARTISAN

COMPETITION FOR $300 IN PRIZES.

The House Warming Manual contains the combined wisdom of leading experts in the three great methods of heating, rather than the conjectures of a single man. It is up-to-date and practical, and is a mirror of heating practice today. 270 pages. Bound in red, with cover embossed in gold. $3.50 per copy.

DANIEL STERN,
60 Dearborn Street, Chicago.

WILLIAM. H. CUNNINGHAM,
Atlanta, Ga., writes:

"Please discontinue my advertisement for a situation, as I have a position here, and the chain of letters is still coming."

No Extra

charge is made to purchasers of our ranges for the name or past reputation. These goods sell on their merits, and the dealer who secures an agency for the

Willard Steel Range

has a range that he can sell at a price that places it within the reach of all classes.

Wm. G. Willard, Mfr.,

619-621 N. Fourth St. ✤ St. Louis, Mo.

BRAND STOVE CO.

We make largest line of cooking and heating apparatus, cast cooks, cast ranges, steel cooks, steel ranges, hotel outfits, heating stoves, furnaces, hot water and steam heaters. Send for catalogs.

MILWAUKEE, WIS.

Registers and Ventilators.

A Full Line, Unique Designs.

Quality and finish unexcelled. All styles of finish, from Japanned to Gold Plated.

Send for Catalogue:

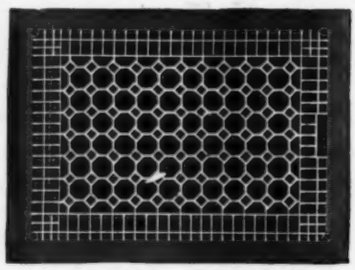
The Philadelphia Hardware and Malleable Iron Works

Philadelphia, Pa.

Henry & Scheible Co.

SUCCESSORS TO T. R. HENRY.

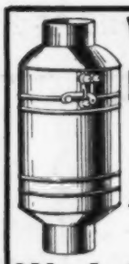
10 Long St. CLEVELAND, O.



ALL SIZES—ALL STYLES OF FINISH. PROMPT SHIPMENTS

Quality and finish unexcelled.

SEND FOR CATALOGUE.



We Protect Dealers

Who handle Burton's Fuel Economizer.

A trial order will convince you.

W. J. Burton & Co.

Manufacturers,

164-166 W. Larned St., Detroit.

Ohio and U. S.

Wrought Steel **Ranges**

We are pioneers in steel range business; old in experience yet adopt modern up-to-date methods. Write for our catalog.

Tinnerman Steel Range Co.,

CLEVELAND, O.

E. W. Lowell

of the Lowell Hardware Co.

Janesville, Wis.

Writes:

"We can't do business without THE AMERICAN ARTISAN."

R. B. WARD, Belleville, Kas., writes:

"Please take my advertisement, 'Tinner Wanted,' out of THE AMERICAN ARTISAN. Your paper certainly reaches the craft. I cannot find time to answer all the applications coming in."

JEWEL STOVES AND RANGES..

JEWEL STOVES AND RANGES
DETROIT STOVE WORKS
LARGEST STOVE PLANT IN THE WORLD

A Complete, Well Advertised Line;
Low Prices and Good Workmanship.
Please Write for Catalogue.
DETROIT STOVE WORKS.
Detroit - Chicago.

1902 "Monograms" for "1902"

Because we know we make the best Steel Ranges, Steel Cooks and Cast Stoves, is no reason why we should fold our hands and let good enough alone.

Our 1902 Stoves will prove how we succeeded in improving them. We do not claim to make more stoves than other manufacturers but those we do make are perfect types of the highest order of excellence in manufacture.

We want good Agencies for every town.

The Quincy Stove Mfg. Co.

QUINCY, ILL.

C. J. WORNNEST,
AGENT FOR MICH.

Royal Heaters.

MANUFACTURED BY THE
HART & CROUSE CO.
UTICA, N.Y.

ALL THE LEADING LINES OF
STEAM, HOT WATER & HOT AIR,
FOR HEATING ALL CLASSES OF BUILDING.

235 WATER ST. N.Y. BRANCHES. 79 LAKE ST. CHICAGO.
COLUMBUS, O. ST. LOUIS.

C. R. SIPES, Arkansas City, Ark., writes: "We could hardly keep house without The American Artisan."

Carried Away

The dealer who gives his neighbors a strong argument on the subject of
RICHMOND FURNACES
is certain to secure their close attention.
These heaters are effective in all kinds of weather: powerful, economical, easy to regulate, durable.
Write for catalogue.

Richmond Stove Co.,
NORWICH, CONN.

WESTERN BRANCHES:
Chicago Heater & Supply Co., CHICAGO.
Rumsey & Sikemeier Co., ST. LOUIS.

With Air-Blast Attachment for Soft Coal.

Is Your Heating Business Profitable?

IF NOT

Mueller

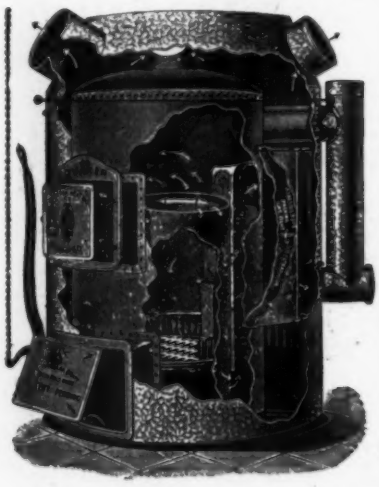
FURNACES AND BOILERS

WILL MAKE IT SO.

Complete Line of Heaters for All Kinds of Fuel.
Get Our Special Register Offer.
Everything in the Heating Line.

For Wood.

191 Reed St. **L. J. Mueller Furnace Co.** Milwaukee, Wis.



Quaker

furnaces, also Panama, Hoffman, Low Down and combination hot water. Quaker Time Clock Regulator, Side Wall Registers, Pipe and Fittings and a full line of furnace supplies. A complete outfit for installing a warm air or combination plant all supplied by us made at our own foundry and machine shop and works. Live agents wanted. Send for prices and catalogues. Special attention given to complete plant orders and car-load lots.

Wireton Heating Co.

FACTORY AND OFFICE, BLUE ISLAND, ILL. CITY OFFICE, 40 DEARBORN ST., CHICAGO

Weir Furnace.

Weir ALL STEEL GAS AND SOOT CONSUMING Furnace.

The Heaviest Steel Furnace Made.

Absolutely gas and dust tight.
A great heat producer, but a fuel saver.

MADE IN TWELVE SIZES.

"The Handy Furnace Pipe"

The saving of labor in putting it up really makes it the cheapest hot air pipe on the market.

Is Absolutely Safe.

Handy Pipe.

Manufactured by

Meyer Furnace Co.

Send for Catalogue. PEORIA, ILL.

Gilt Edge Furnaces and Combination Heaters

Registers and Tin and Galvanized Iron Furnace Fittings Manufactured by

R. J. SCHWAB & SONS CO., - - Milwaukee, Wis.

STAR STOVES AND RANGES
ENTERPRISE STOVE CO. VINCENNES, IND.
GUARANTEED

CATALOGUE SHOWING

Gas Ranges
Steel Ranges
Cast Ranges
Steel Cooks
Cast Cooks
Cast and
Steel Heaters
Hot Plates

WILL BE FURNISHED FOR THE ASKING BY

Enterprise Stove Co.
VINCENNES, IND.

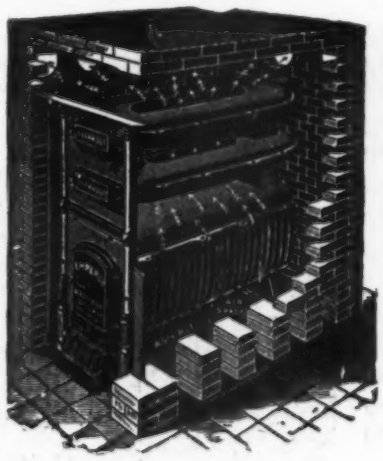
THE JUDGE'S MANSION

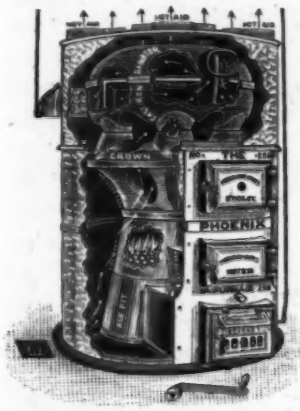
and the widow's cottage both require heating, but the same furnace would hardly do for both. The successful furnace dealer is one who handles a line like the **Floral City** which embraces warm air and combination heaters for any class of work or any kind of fuel.

Monroe Foundry & Furnace Co.,
MONROE, MICH.

Emperor Furnaces
For Wood
Simple. Safe. Durable.
The Best and Cheapest Line of Wood Furnaces.
Furnished for Either Brick or Galvanized Iron Casing. Send for Catalogue.

Bergstrom Bros Co.
Neenah, Wis.





No Dead Surface

is the keynote of construction of Palmer's world renowned PHOENIX FURNACE. We challenge the world to produce its equal. It has direct, indirect and reversed draft. It is made in six sizes in portable, brick or combination form.

Write for catalogue.

Phœnix Iron Works,
UTICA, N. Y.

H. Koch & Son, New Baden, Ill., Write:

"Please discontinue our advertisement, for we have more inquiries than we can answer; besides, we are very thankful, having now a man to fill the position O. K. We will always remember

The American Artisan

and would not be without same"

Smith Water Heaters.

A Combination of hot air and hot water is the best method of heating a residence and the only method that gives a supply of fresh air.

Smith's Hot Water Specialties have a national reputation. They can be placed in any kind of hot air furnace, steam or hot water boiler.

A Combination will make your house comfortable; will save fuel.

Many houses have rooms they don't heat, in these our **Combination** can be used to increase the capacity of furnace, steam and water boiler.

Any live dealer wanting business can get it by talking **Combination.**

Every home needs hot water in the kitchen.

You can't afford to experiment with jointed coils or attachments.

Smith's Specialties have no joints.

There are thousands of them in use. They are always satisfactory. Hundreds of the best dealers handle them.

Send for Catalogue Giving Dimensions, Capacities and Prices.

Hero Cast Iron Furnace

(Made in five sizes)

Is the Best for a Cold Climate.

Has deep ash pit, cup joints, corrugated fire pot and dome. **With reversible flue, heat passes around the radiator twice, and saves fuel.**

Smith's Triangular Revolving Grates

have great strength. Each bar is looped separately. The replacing of any bar is an easy matter.

Always satisfactory.

Thousands in use.

There is no furnace that will give better satisfaction than the "Hero."

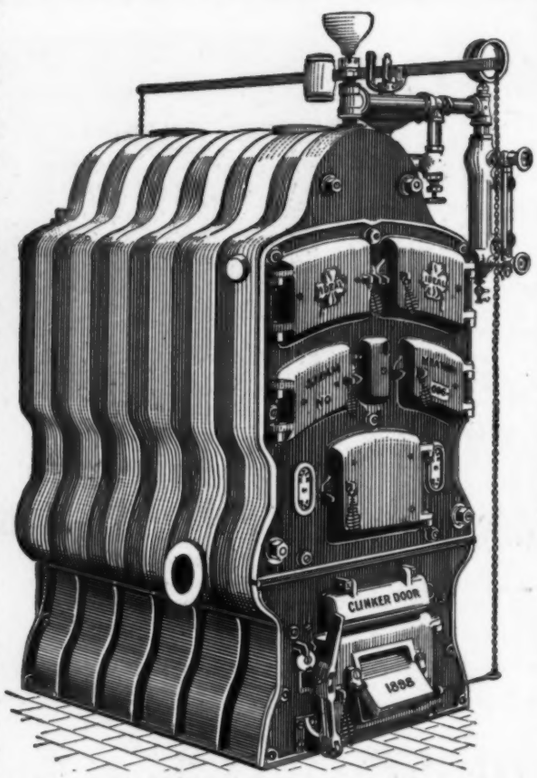
Suitable for hard or soft coal.

Write us for descriptive matter.

MANUFACTURED BY

Chas. Smith Company

122 Lake Street, CHICAGO.



Ideal Sectional Steam Boiler.

Ideal Boilers

will be more popular than ever in 1902; and we shall be prepared to give even better service than during the past busy year.

Have you our Catalog?

American Radiator Company

Chicago, New York, Philadelphia, Buffalo, St. Louis, Minneapolis, Denver.

BUY

The Triumph Adjustable Stove Pipes

AND SAVE TIME, SPACE AND MONEY.

The Triumph Adjustable Stove Pipes are easy to put up, and when up need no wire to hold them, as they are solid and tight.

The Triumph Adjustables are here to stay.
And their demand is gaining day by day.
Their venture has gained great renown
In city, country and in town.

Write for Prices, etc.

The Triumph Adjustable Stove Pipe Mfg. Co.

JOLIET, - - - ILL.

No. 233.

Draft Register Screw

MANUFACTURED BY

The Fanner Manufacturing Co.
CLEVELAND, OHIO.

JOHN F. HOGUE & Co.,
URBANA, O.

WRITE--

"Please discontinue our ad. for a Tinner. We have secured one and are much obliged to you for the advertisement."

Lackawanna Railroad

The Scenic Line TO New York City

Palatial Solid Vestibuled Trains
Superb Dining Cars
(Meals a la Carte)
Observation Cars **Latest Pullmans**
Elegant Day Coaches

3 THROUGH TRAINS DAILY from CHICAGO 3

Leaving Chicago	Arriving New York
10.35 a. m.	3.35 p. m. next day.
2.30 p. m.	7.30 p. m. next day.
10.30 p. m.	7.10 a. m. 2d day.

Rates $18.00 First Class
$16.00 Second Class

CITY TICKET OFFICE: 103 Adams Street
GEO. A. CULLEN, Gen'l West'n Pass. Agt.
CHICAGO

Locations for Industries.

Manufacturing is rapidly developing along the lines of the Chicago, Milwaukee & St. Paul Railway. Industries on a large scale now extend to the Mississippi River with indications of reaching the Missouri. Machinery and all the higher classes of manufactured goods are now being exported from this business territory to all parts of the world.

The Chicago, Milwaukee & St. Paul Railway Company's 6,600 miles of railway, exclusive of second track, connecting track or sidings, traverses eight states, namely:

NORTH DAKOTA	MINNESOTA	NORTHERN MICHIGAN
SOUTH DAKOTA	IOWA	WISCONSIN
Express Passenger Trains, Fast Freight Trains Throughout.	MISSOURI	ILLINOIS

which comprise a territory full of natural resources and advantages. This railway is geographically well located in relation to the great markets and distributing centers. Beyond its lines is a vast and rapidly developing territory extending to the Pacific Coast.

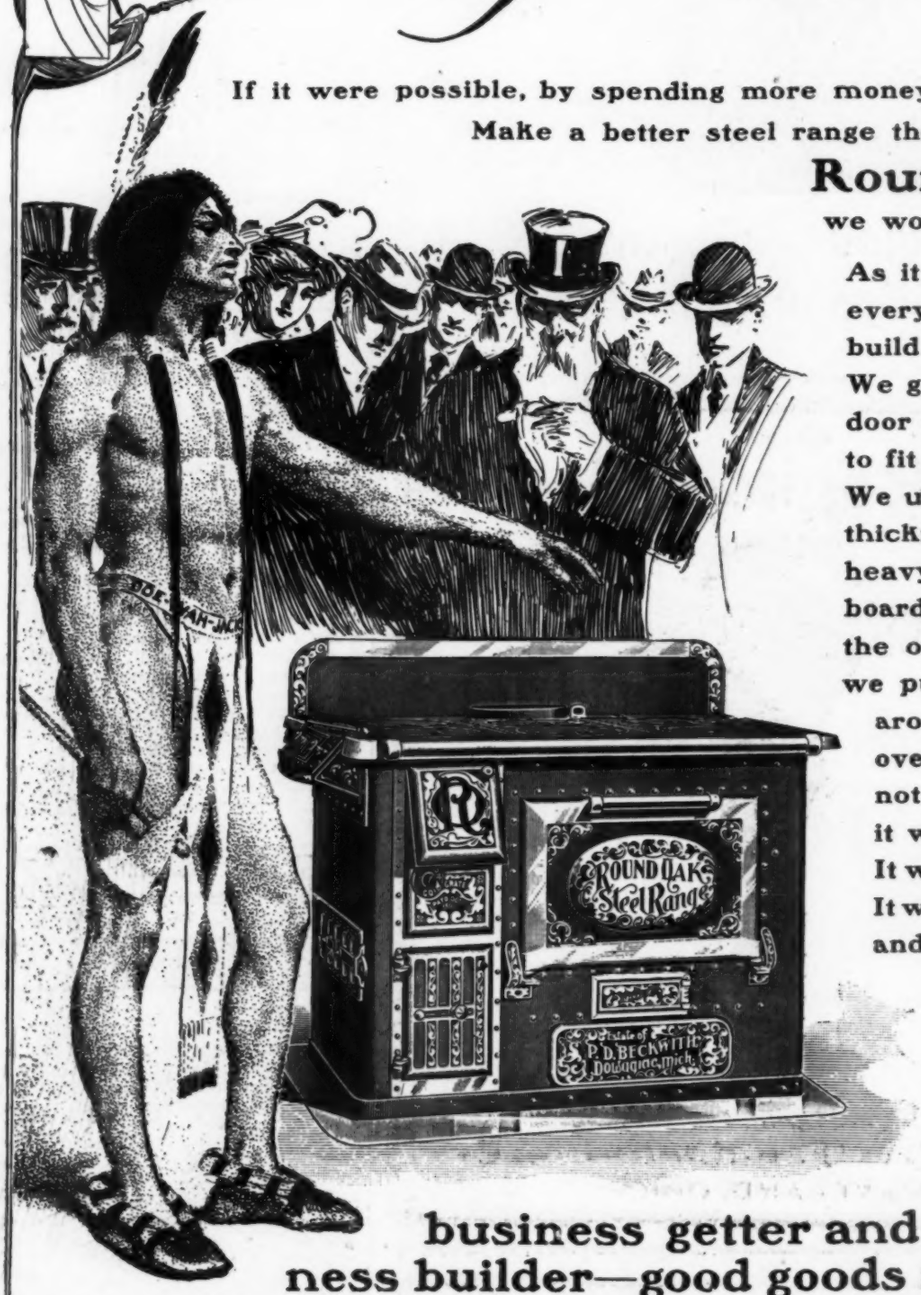
The Company gives unremitting attention to the development of local traffic along its lines and, with this in view, seeks to increase the number of manufacturing plants on its system, either through their creation by local enterprise or the influx of manufacturers from the east. It has all its territory districted in relation to resources, adaptability and advantages for manufacturing. Specific information furnished manufacturers in regard to suitable locations. Address,

LUIS JACKSON,
Industrial Commissioner C., M. & St. P. R'y.
660 Old Colony Bldg., Chicago, Ill.

Advertising is the root of all money.

ROUND OAK
STANDARD of AMERICA

If it were possible, by spending more money, to Make a better steel range than the **Round Oak** we would do it.



As it is, we take every pains to build it right. We grind every door and draft to fit tight. We use three thicknesses of heavy asbestos board to insulate the oven, and we put it all around the oven flues—not only where it will show. It will hold fire; It will save fuel; and we expect it to outwear and outlast any range made.

It is a business getter and a business builder—good goods always are. These are facts for you to consider.

Estate of P. D. BECKWITH

Makers of Good Goods Only DOWAGIAC, MICH.

2 HB CHICAGO

ESTABLISHED 1880.

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

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CHICAGO, JAN. 11, 1902.

THE course of the domestic trade of the United States during November and for the eleven months ending with November is generally satisfactory. The Treasury Bureau of Statistics, reporting on internal trade at interior centers, shows that Minneapolis, Duluth, Milwaukee and Chicago received 101,010,108 bushels from spring wheat territory for the first quarter of the current crop year, being a gain of 39 per cent over the first quarter of 1900. At the winter wheat markets of Toledo, Detroit, St. Louis and Kansas City the first five months of this crop year, on the contrary, show a decrease in receipts from 46,441,478 bushels to 35,798,728 bushels.

CHAS. W. LYMAN, at present an advertising solicitor for the Scientific American and an old newspaper man, certainly has the journalistic instinct in a high degree, as is shown by his narration of the following little incident that occurred when he was reporting on the Atlantic (Iowa) Telegraph:

"I remember at that time a horse thief had been captured some 40 miles away from the town, and I was sent out to report his execution, for the 'Regulars' soon condemned him to be shot. I managed to get right up to the man's elbow just before he made his dying oration to the crowd. Something he said missed my ear, and I stopped him in his speech and asked him to repeat the words. He did so, but those in the crowd who were not in the newspaper business thought I had a fairly good sized nerve to interrupt a man who was about to be launched into eternity for the purpose of getting his dying speech accurately."

THE Washington Post has a novel but, we fear, an impracticable suggestion for the establishment of a clearing house for small accounts. The suggestion has its origin in the annoyance incident to the payment of a score of bills, more or less, each too small to warrant the drawing of a check, the purchase of a money order or the registering of a letter. Here is the scheme for relief as outlined by the Post:

"Suppose the small dealers in Washington generally empowered a certain clearing house to receive cash and receipt bills for them, and had their bills printed with a detachable coupon like a gas bill; the householder could let enough such bills accumulate to make a respectable total, draw his check for $55.34, or whatever the sum might be, and take his receipts in a bunch. That would relieve him of an enormous amount of trouble; it would save him the postage and risk of mailing; it would spare the overworked bank clerks a mass of work which they now must do in entering petty checks; and, last, but not least, the creditors would receive the money for dozens of accounts too trifling to warrant following up on their part and apt to be overlooked and forgotten by the debtor. The clearing house could charge a minute fee for handling this business and make a fine income from the aggregate of it."

RANDOM SKETCHES.

BY SIDNEY ARNOLD.

WILLIAM E. CURTIS, writing in the Chicago Record-Herald, pays his respects to the primitive heating apparatus in vogue in the city of Florence, Italy. He tells of artists garbed in heavy overcoats, with their legs wrapped up in blankets and their noses and fingers blue with cold, copying pictures in the Uffizi and Pitti galleries. The Florentian churches are declared to be refrigerators, warranted to chill human flesh in a very few minutes. He continues as follows:

"I do not understand how the poets and artists who have made this city famous were able to work in the winter, for if there is any one thing that will cause the divine afflatus to evaporate sooner than another it is cold feet. There is no way of heating any of the great palaces of Florence. There are no stoves or fire places or furnaces, and no chimneys except for the kitchen. In a few modern houses steam heat and fire places have been introduced, and one frequently sees a stove pipe sticking through a piece of tin that has been inserted in a sash of one of the windows, and in some of the hotels fire places have been arranged in compliance with the demands of foreign patrons, but the fuel is little sticks of olive wood not much bigger than your finger, and it keeps one busy tending the fire. The man who said that he did not see how anybody could live in Florence in the winter or how anybody could die there in summer knew what he was talking about.

"We were told of one place in Florence where people can manage to keep warm, and that is the Villa Trollope, formerly owned by the English authoress of that name. George Eliot lived there for several years and wrote "Romola," altogether the best story of Florentine life, in the corner room of the first floor. The house is now a pension chiefly patronized by Americans because the dining room and halls have hot-air radiators, there are stoves in several of the rooms and fire places in others, and the landlady, Mrs. MacNamee, who comes from New Jersey, serves corn-beef hash, codfish balls and mince pie to homesick Americans."

* * *

A RECENT issue of Varnish, a furniture trade paper, contains an interesting account of the experience of Hans Sauermilch at a state convention of furniture dealers. I give a few extracts from this article, which may touch a responsive chord in the breasts of

hardware dealers who have attended similar gatherings in their own trade:

"Von uv der nicest tings apout dese gonventions efry year, is to meet so menny peoples vot you haf knowed fur menny years, as vell as a large number vot you haf nefer knowed. It vas bleasant to hear der fellers say: 'Hello, Hans, how you vas?' und I tell dem 'Wie gehts?' Yes, it vas bleasant; some uv us haf knowed von un unner fur menny years. But efry year ven ve coom togedder, dere vas alvays von or two gone; dropped oudt! und ve say some nice tings apout dem, und soon dey are forgotten, fur unner mens takes dere blaces, und der vorld goes on yust der same.

"Vell, it came time fur der banquet, vich vas held in a big armory, over in der nord-vestern bart of der veety. In order to get us dere, special trolley cars vent by der hotels, und shifted ofer different roads, so dot ve vent right to der door mit oudt change—I mean mit oudt change uv cars, for ve all had to haf feif cents in change to pay der fare. It vas only feif cents, und ve didn't haf to make any transfer.

"Der vas blenty uv room in der armory, und der vas no growding. Und der growd vas less than yusual, begause some uv der members vent in before it vas time. Der seats vas not so close togedder like dey vas at some banquetses, und efry feller had blenty uv elbow room, und vas not afraid dot der next man to him vould knock his knife down his throat. I enshoyed der dinner. It moved slow. Dere vas apout vorty meenets peetween courses.

"Der band vas bully, und vas clapped dree or vour times, or oftener. I had a hunk uv beef from der tender side uv some cow, und I et efry bit uv it, but ven it coom to eating raw birds, I drawed der line. I vant my birds cooked, as I am not a cannibal, nor a vulture, or enny uv dose animals. Der vater-ice vas served in leetle boxes mit a carriage on top, und in efry von uv der carriages der vas a cigarette und a beany segar. As I haf nefer got down so low as to schmoke cigarettes, I gafe mine to a newspaper man. I will say, for der management, however, dot dey afterwards gafe us life-size segars, vich vere ferry goot.

"Ve had some speeches. Some uv dem vas after-dinner speeches, und some uv dem vas pefore-breakfast speeches. By der time ve got to dese last speeches, most uv der mens had got to dere hotels und vas in bed, und der vas meach room arround der tables."

* * *

JUSTICE Patterson, of New York, has handed down an interesting decision in the case of Katherine O'Connell, *et. al.*, dressmakers, vs. Ethelinda M. Shera, for $84,706. Testimony was given to show that the plaintiffs had been accustomed invariably to issue all of the defendant's bills in her own name; that the articles were sent to her at her own request; that she alone had agreed upon the prices charged, and that she personally had made a part payment on account of her indebtedness. Absolutely no reference to her husband, the plaintiffs alleged, ever had been made by the defendant in any of her transactions. The defendant averred, on the other hand, that she was a married woman; that she was known by the plaintiffs to be such; that the goods in question were not delivered to her upon her own credit, but upon the credit of her husband, and that her dressmakers' bills were payable by him. Justice Patterson, who rendered the opinion, said:

"While it is true that the presumption is that the husband is liable for necessaries furnished to a wife, yet the wife has complete right to contract for her personal liability, even for necessaries. Since Chapter 381 of the Laws of 1884 was enacted all disabilities of a married woman to make valid contracts are removed, and she may now make contracts and bind herself in the same way as a *femme sole*.

"Where such a contract is made she is no longer to be considered as the agent of her husband. The defendant here was competent to contract. The plaintiffs show that credit was primarily given to her, and there is evidence that she recognized that the contract was with her, for she paid personally on account of the indebtedness and wrote a letter to the plaintiffs acknowledging that she owed the bill."

This decision will furnish additional protection to the trade of the Empire State. There are plenty of deadbeats who place all their property in their wives' name. Mrs. Deadbeat can no longer contract for her necessaries in New York state and when the hour of payment comes calmly declare that her bankrupt husband must pay the bills and not herself. As Justice Patterson said, a married woman can bind herself in the same way as a *femme sole*.

* * *

A PERUSAL of some late articles is enough to give a man an incipient attack of microbitis. Not only do these small forms of life kill off the human race at the rate of 15,000,000 a year, but they also help him to live. All butter is made by microbes, so is cheese, wine, beer, bread, vinegar, gunpowder and chalk. Now that every existing disease, from leprosy down to a boil, has been found to result from the misdirected energy of some microbe, science has harnessed these evil growths, dwarfed them, and is using them to fight their parents. Vaccination has proved an immense success, and Pasteur and others consider that all diseases might possibly be fought in the same kind of way. Pasteur's most famous experiments have been for the cure of hydrophobia. This terrible form of madness is caused by a poison inoculated by the teeth of a mad dog or other animal. The poison from a wolf's mouth is the worst; that from a dog is next in virulence. Pasteur discovered that hydrophobia germs from a monkey were not so virulent as those from a dog, and that by inoculating a rabbit or a guinea pig the poison might be still further reduced in strength. Only five per thousand of Pasteur patients die.

* * *

THIS sapient account of the start of the bronze age is given by the House Furnishing Review:

"On a prehistoric day, some dweller by a Swiss lake or a Danish marsh came into possession of a copper arrow head, which impressed him as being an improvement on the stone one he had always used. When he began to discuss its merits with his neighbors he found that they, too, all had similar arrow heads, and agreed with him as to their superiority."

The "neighbors" probably secured their arrow heads from their "neighbors."

News Siftings.

The Sheffield Stove & Foundry Co., Sheffield, Ala., will enlarge their plant.

Work has been begun on the new buildings of the Simpson Stove & Mfg. Co., Canonsburg, Pa.

The Keystone Foundry & Manufacturing Co. have moved into their new plant at Versailles, Pa.

The postoffice has authorized an increase in the size of private mailing cards, from 3½x5½ to 3½x5½ inches.

The Novelty Stove & Mfg. Co., Savannah, Mo., are building a large foundry where they will manufacture castings for their Howard air-tight heaters.

The Williams Stove Lining Co., Taunton, Mass., make a variety of desirable specialties which they sell to the trade at attractive prices. These include incandescent gas fuel, Eagle stove clay and brick stove linings.

The National Association of Manufacturers will hold their next annual convention in Indianapolis in March. The exact date will be announced by the executive committee, who are shortly to convene in Philadelphia.

The Triumph Adjustable Stove Pipe Mfg. Co., Joliet, Ill., make some special claims for their Triumph adjustable stove pipes. These pipes are very easy to put up, and when up they need no wire to hold them, as they are solid and tight.

The John Van Range Co., 419 Elm street, and 410-416 Home street, Cincinnati, O., are manufacturers of Van's patent improved wrought steel portable range for hotels, restaurants, public institutions, boarding houses and private families.

The Enterprise Stove Co., Vincennes, Ind., get out some interesting little pamphlets for distribution by their customers, giving points on their gas ranges, and containing a large number of valuable recipes which will appeal to any housewife.

The Taylor & Boggis Foundry Co., Cleveland, Ohio, are manufacturers of a complete line of light gray iron castings, builders' hardware, dampers, oil and gas stoves, etc. They also do japanning and electroplating work. J. M. Litchfield, 105 Beekman street, is their New York representative.

Ayling Bros., 8-14 Haddon avenue, Chicago, are having marked success with their sales of A B stove polish. This is a new patent prepared dry stove polish, which mixes very quickly, shines quickly and easily, and gives a black and brilliant waterproof and rustproof finish.

Charles E. Bartenbach, who visits the Ohio trade in the interests of the vapor oil and gas stoves and asbestos-lined ovens manufactured by the Monarch Stove & Mfg. Co., Mansfield, O., was a recent caller at THE AMERICAN ARTISAN office. Mr. Bartenbach is greatly pleased with the business outlook for 1902.

Mullin Wayne, who formerly represented the Pittsburgh Stove & Range Co., Pittsburgh, Pa., has resigned to accept a position with The Prizer-Painter Stove and Heater Co., Reading, Pa. Mr. Wayne will be located at the Pittsburgh office of this company, which will be opened in the near future under the management of Charles W. Goodnough.

The many friends of D. K. Clink, secretary and treasurer of the Northwestern Traveling Men's Association, with headquarters at 69 Dearborn street, Chicago, will sympathize with him in the loss of his mother, Mrs. Joseph Clink, of Florenceville, Iowa. Mrs. Clink was in her seventy-sixth year, and died on Saturday, Dec. 28th, the funeral being held Tuesday, Dec. 31st.

Among the popular goods manufactured by the Blackloch Foundry, South Pittsburg, Tenn., are their eccentric stove kettles and pots. The peculiar construction of the bottoms of these kettles enables one to use these goods on either size hole designated by the numbers say 6 and 7. They can be used on smaller top stoves by turning the narrow rims of bottoms together.

The Nickel Plate Stove Polish Co., Chicago, are manufacturers of some popular polishes in their Black Jack Paste, Liquid Black Eagle and Peerless Iron Enamel. Black Jack Paste stove polish is designed for parlor stoves, pipes and ranges. Their Liquid Black Eagle is a waterproof stove polish and their Peerless Iron Enamel is a brilliant jet black enamel that never wears off.

Among the handsome vapor stoves made by the Detroit Vapor Stove Co., Detroit, Mich., is the Detroit No. 2, a large, new style, two-burner and step stove, with warming closet. It has nickeled base corners on the casters and oxidized copper pillars, also full nickel shelf, brackets and railing. There is a large oven burner under the step and this stove has this firm's improved top and grates.

There are very few Wisconsin stove dealers who would be eligible for jury service on a case where Joseph W. Hall was the prisoner at the bar, as nearly all of them know this genial representative of S. S. Jewett & Co., Buffalo, N. Y., who for the past fifteen years has been selling goods in Badgerdom and the copper country. Mr. Hall advises us in a recent favor that he will continue to represent this firm for 1902.

Joseph T. Ryerson & Son, Chicago, get out a monthly journal called the Boiler Maker and Sheet Metal Worker. On pages 20 and 21 of this volume we find the results of tests of internally-fired types of boilers, with Morison furnaces and the Hawley down draft. The Chicago water works commissioners have equipped three pumping stations with these boilers, there being six boilers of about 250 h. p. in each station.

E. A. Ireland, the well-known representative of the Matthews & Willard Mfg. Co., Waterbury, Conn., manufacturers of stove trimmings, rings and edges, has taken his son, E. C. Ireland, into partnership with him and opened up handsome offices in suite 1209 Auditorium

building, Chicago. In addition to urns and other trimmings this firm will act as agents for the Harshaw, Fuller & Goodwin Co., Cleveland, Ohio, manufacturers of nickel anodes.

The M & D Range Co., 96-100 Lake street, Chicago, had an increase of 25 per cent in their 1901 sales over those of 1900, and all signs point to an increased demand for their goods in 1902. This firm is bringing out a new line of combination ranges. They also make double oven gas ranges, a full line of steel ranges for family use, hotel and double-oven ranges, charcoal broilers and laundry stoves.

The Quakertown Stove Co., 37-39 North Second street, Philadelphia, Pa., send us a little calendar showing a Quaker pointing to one of their ranges and a very dashing maiden, far removed from the "Cynthia" type of demure Quakeress, dancing gaily at the sight thereof. A second maiden in servant's costume is smiling gaily at the terpsichorean evolutions of her mistress, One of these calendars will be sent the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

The Twin Burner Vapor Stove Co., 206-210 South Seventeenth street, St. Louis, have been working hard on their lines of Twin Burner gasolene and oil stoves, and have greatly improved them for 1902. The patterns of their Process stoves have all been thoroughly overhauled and new ones added here and there to give them style and dash. The burner drums, which are made of brass, the hot air tubes, and the needle points are impervious to heat or rust. The Jumbo burner is simple in operation and makes a very large and hot fire. There is no offensive odor from it when operating nor any smoke when generating.

The Abram Cox Stove Co., Philadelphia, Pa., with Chicago branch at 15-19 West Lake street, Charles A. Rusco manager, did a business of over $300,000 in Novelty stoves, ranges and furnaces during 1901. They have added to every department, and in 1902 will employ more traveling salesmen, more shipping clerks, more molders, mounters, nickel platers, patternmakers, etc. Mr. Rusco, the magnetic manager of their Chicago branch, is making a determined effort to reach the half-million mark in his sales for the ensuing year, and his friends in the trade who are conversant with his persistent energy are convinced that he will succeed in reaching the high goal he has set for himself.

The Champion Steel Range Co., Cleveland, Ohio, claim that the only double flue, hot blast construction is found in their Champion steel range. These ranges are guaranteed to give satisfaction with any kind of fuel. They are finished in Japan and polished steel or Russia iron. This firm are represented by the following leading houses, viz.: Lee-Glass-Andreesen Hardware Co., Omaha, Neb.; James Graham & Son, San Francisco, Cal.; Michigan Distributing Co., Lansing, Mich.; J. M. Litchfield, New York, N. Y.; Kettlesen & Degetan, Chihuahua, Mex.; Moore-Handley Hardware Co., Birmingham, Ala.; Richards & Conover Hardware Co., Kansas City, Mo.; Chicago Stove & Range Co., Chicago, Ill.; Jacob Retterer, Chicago, Ill.; Corbett, Failing & Robertson, Portland, Ore.; Palmer Hardware Co., Savannah, Ga.

Color is a matter of minor importance in most articles. A saw with a blue handle will cut as well as a red-handled saw, but when you come to stove polish, the question of color is all important. It is essential that the manufacturer should select ingredients with the most unusual care, and mix them so as to produce the blackest possible compound. Lewis D. Wynn, Sterling, Ill., has built up a large trade for his Black Silk stove polish, whose richness in color makes it a deserved favorite with the trade. This polish is made with unusual care from a special formula, which is zealously guarded by Mr. Wynn. It is supplied in a great variety of sizes, to meet any and all demands of the trade.

GASOLENE STOVE CLEARING HOUSE ESTABLISHED.

On December 27 last Clifford W. Perkins, A. S. Meekin and K. K. McLaren incorporated the American Stove Co., under the laws of New Jersey, with a capital stock of $125,000, which will be increased to $5,000,000. The press dispatches of that date gave the misleading information that this new company would be the basis of a stove trust with a capitalization of several millions.

This company is not a stove but a gasolene stove consolidation, embracing the "big seven" of the gasolene stove world, viz.: Geo. M. Clark & Co., Chicago; Standard Lighting Co., Cleveland; Schneider & Trenkamp, Cleveland; Monarch Stove & Mfg. Co., Mansfield, Ohio; Ringen Stove Co., St. Louis, Mo.; National Stove & Mfg. Co., Lorain, Ohio, and Dangler Stove & Mfg. Co., Cleveland, Ohio. This consolidation seemed to have insuperable obstacles in its way, and its successful consummation is due to the indefatigable energy and persistence of C. A. Stockstrom, of the Ringen Stove Co., St. Louis, who will act as executive head of the new company, while the important post of secretary will be filled by Herman Trenkamp, formerly of the Schneider & Trenkamp Co., Cleveland. It is probable that Mr. Trenkamp will move to St. Louis in the near future and will transact the multifarious business of his office with that point at his headquarters. Meetings of gasolene stove men were held at Chicago on January 3 and 4, and finally on the 7th a final meeting was held at which all details were adjusted and the scheme became a go and the different plants are being inventoried.

This new merger of gasolene stove interests is not a "trust" in the sense in which the Standard Oil Co. is a trust, but is rather a clearing house which will classify the distributive atmosphere and curb excessive and ruinous competition. Added to its economy of distribution will be that of manufacturing. No effort, as far as we know, will be made to raise prices, but on the contrary the economies of the new system may undoubtedly result in lower prices.

The range of prices is of course a matter of conjecture in any line of business, but it can be confidently stated that 1902 will see a uniformity of prices in

various localities and seasons that has not been excessively conspicuous the past years.

The needless duplication of travelers and the expense of cross-fire freight rates will be minimized under the new management with its carefully planned territorial allotments.

The trade will have the benefit of an unerring uniformity of prices. The haggling over extra discounts that is the outcome of conditions where the dealer perpetually fears that his competitor is getting secret rebates that will put him out of the running will become but a trade memory in the future.

AMENDMENTS TO BANKRUPTCY LAW.

The Omaha Association of Credit Men have carefully formulated the following amendments which they desire made to the present bankruptcy law:

First—That Section 57g be clearly defined and state in unmistakable language that any and all payments made in good faith and in the ordinary course of trade shall not be considered preferences.

Second—That the law be so amended as to vest in the United States courts complete, absolute, and exclusive jurisdiction in all matters pertaining to bankruptcy.

Third—That a discharge be denied or revoked if the bankrupt has (1) committed an offense punishable by imprisonment as the law now provides; or (2) failed to keep or refused to furnish books of accounts, records or such other information necessary to ascertain his true financial condition; or (3) his estate shall not have paid a dividend of at least 25 per cent; or (4) obtained property on credit upon a false statement made by him to any person for the purpose of obtaining credit or of being communicated to the trade or to the person from whom he obtained such property on credit; or (5) make a fraudulent transfer of any portion of his property to any person; or (6) been granted a discharge in bankruptcy within six years; or (7) in the course of his proceedings refused to obey any lawful order of or to answer any question approved by the court; or (8) failed to file a correct or complete schedule of his assets; or (9) failed to attend one or the first meeting of his creditors; or (10) become insolvent through gambling, dissipation or wilful neglect.

Fourth—That the law provide for uniform exemptions.

Fifth—That a bankrupt's wife be a competent witness and subject to examination.

Sixth—That the bankrupt be required to attend for examination without expense to the estate at least one meeting of creditors.

Seventh—That any person shall be required to attend as a witness before a referee, regardless of the distance of his place of residence.

STOVE MEN FEED.

The annual conference of salesmen employed by the Reading Stove Works, Reading, Pa., was held at their home office recently. A banquet was given at the Maunon House, that city, to their representatives, by the management, and the following menu was served:

Blue Points.
Celery. Tomato Soup.
Lobster a la Newburg.
Green Peas.
Young Turkey Stuffed. Cranberries.
Braised Sweet Breads. Potatoes.
Lettuce with Mayonnaise.
Vanilla Ice Cream. Fancy Cakes. Cheese
Crackers. Coffee.
Cigars.

President W. Harry Orr presided, and welcomed the party, after which Mr. Essick took his place as toastmaster. A dozen of the banquetters made responses, and the brightest prospects for the new year were predicted. The guests were:

Directors—W. Harry Orr, president; Edgar Amole, treasurer; C. H. Williamson, superintendent; W. H. Luden, Jesse Posey, R. P. Shick and C. H. Shick.

Main Office—Wm. S. Essick, secretary and general manager; F. L. Connard, manager heating department; J. C. H. Lynn, chief clerk; Daniel Amole, foreman shipping department.

Reading Salesmen—Jos. W. Sheeler, C. C. Hornung, W. H. Kurtz, C. A. Barker, F. Ruoff, F. C. Steltz, T. W. Fagan and W. H. Shick.

Boston Branch—Walter H. Billings, manager; Alex. C. Burke, salesman.

Philadelphia Branch—Wm. Thompson, manager; A. J. Eickmeyer, W. H. Clark and George E. Eben, salesmen.

Chicago Branch—John H. Ross and John Kontny, managers.

Reading Foundries—Nathan Gates, James Gossler, John A. Kline, Richard Riddington, C. W. Irwin, W. H. Rhoda, Horace Grander, E. S. Miller, W. A. Deeter, E. C. Auman and Bertram Shaner.

Dayton Foundry—Zenas A. Craig, superintendent, and W. M. Kingsbury, salesman.

Guest—Harvey J. Fueller, statistical reporter.

GARLAND CHANGES FOR 1902.

The Michigan Stove Co., Detroit, Mich., are sending out the following notice to the trade anent their Chicago house:

"We hereby advise our customers and friends that the management of our Chicago house has been intrusted to Mr. Robert L. Morley, who for the past eighteen years has filled the position of associate manager.

"Associated with him in the management will be Mr. J. B. McKewon, who for several years has occupied a similar position in a Chiago stove manufacturing concern.

"We bespeak for the new management your confidence and cooperation, knowing that the same will not be misplaced.

It will be our aim in the future, as in the past, to make "Garland" stoves and ranges household words, and maintain the high reputation they have enjoyed."

BARLER'S SAFETY DOCUMENT FILE.

The A. C. Barler Mfg. Co., 104-106 Lake street, Chicago, are manufacturers of Barler's safety document file shown in the accompanying cut.

Barler's Safety Document File.

This file has sheet steel case, fine enamel with gold striping, superior lock, two flat steel keys and removable pockets made of 100-pound manilla with metal eyelets.

The Hardware Record.

American Hardware Manufacturers Association.

Pres., Fayette R. Plumb, Philadelphia.
V.-Presidents, Samuel Nicholson, Providence; C. S. Van Wagoner, Cleveland. F. S. Kretsinger, Fort Madison, Ia.
Secy-Treas., F. D. Mitchell, Pittsburg.
Ex. Com., Robert Garland, Chairman, Pittsburg; Henry B. Lupton, Pittsburg; N. A. Gladding, Indianapolis; W. S. McKinney, Allegheny, Pa.; Samuel Disston, Philadelphia; C. E. Adams, Cleveland; James P. Kelly, Alexandria, Ind.; J. C. Birge, St. Louis.

Arkansas Retail Hardware Dealers' Association.

Pres., John M. Pitman, Prescott.
1st V.-P., J. F. Maxey, Ozark.
2d V.-P., T. B. Stewart, Newport.
Secy-Treas., J. A. Plummer, Marianna.
Ex. Com., H. Williams, Hot Springs; J. H. Boicourt, Little Rock; J. W. Lee, Fordyce.

Chicago Retail Hardware Dealers' Association.

Pres., D. McLaughlin.
V.-P., H. E. Gnadt.
Sec., G. R. Lott.
Collector, John Hora.
Treas., J. L. Smith.

Hardware Merchants' and Manufacturers' Association of Philadelphia.

Pres., Hugh McCaffrey.
V.-P., Wm. C. Peters.
Sec.-Treas., T. James Fernley.
Directors, William W. Supplee, Samuel Disston, John H. Griffith, James H. Ritter, William C. Peters, Thomas Devlin, Fayette R. Plumb, Hugh McCaffrey, T. James Fernley.

Illinois Retail Hardware Dealers' Association.

Pres., H. G. Cormick, Centralia.
V.-P., Wm. Bittel, Peoria.
Sec., G. R. Lott, Chicago.
Treas., F. F. Porter, Chicago.
Ex. Com., Z. T. Miller, Bloomington; W. T. Gormley, Chicago; H. N. Murphy, Galesburg; C. Mauer, East St. Louis; C. Williams, Streator; L. Babst, Kankakee.

Indiana Retail Hardware Dealers' Association.

Pres., W. P. Lewis, New Albany.
V.-P., Jas. L. Hutton, Portland.
Sec. and Treas., M. L. Corey, Argos.
Members Ex. Com., I. A. Sibley, South Bend; E. M. Bush, Evansville; W. H. Weed, Vincennes.

Indian Territory Retail Hardware Association.

Pres., Geo. W. Mowbray, Tulsa.
1st V.-P., J. G. Smith, Canadian.
2d V.-P., Fred Parkinson, Wagoner.
Treas., Sam R. Frazee, Vinita.

Iowa Retail Hardware Dealers' Association.

Pres., W. A. McIntire, Ottumwa.
V.-P., E. G. Penrose, Tama.
Sec., W. H. Keating, Ottumwa.
Treas., Geo. Lister, Manchester.
Ex. Com., A. C. Heyman, Miles; L. Lindenberg, Dubuque; F. S. Narum, Waukon; E. G. Penrose, Tama; W. A. McIntire, Ottumwa; L. H. Kurtz, Des Moines; H. A. Cole, Council Bluffs; Harry Vincent, Ft. Dodge; W. H. Miller, Cherokee; M. W. Keating, Afton; Jacob Seither, Keokuk.

Kansas Hardware Dealers' Ass'n.

Pres., Geo. F. Andersen, St. Marys.
V.-P., Oscar Roehr, Topeka.
Sec., J. A. Cole, Topeka.
Ex. Com., James H. Hamilton, Arkansas City; E. I. King, Logan; T. H. Kinry, Beloit; J. M. Walters, Robinson; F. W. Bartlett, Kansas City.

Kentucky Retail Hardware and Stove Dealers' Association.

Pres., Geo. Dehler, Louisville.
1st V.-P., J. S. Ogden, Ashland.
2nd V.-P., Chas. D. Winn, Paris.
Sec., Paul Wagner, Louisville.
Asst. Sec., Wm. Dehler, Louisville.
Treas., Henry Heick, Louisville.

Michigan Hardware Association.

Pres., H. C. Minnie, Eaton Rapids.
V.-P., Geo. W. Bruske, Saginaw.
Sec., Fred H. Cozzens, Detroit.
Treas., Henry C. Weber, Detroit.
Ex. Com., Samuel Winchester, Jackson; Fred S. Cook, Fowlerville; C. E. Pipp, Otsego; A. Harshaw, Delray; A. J. Scott, Marion City; James J. Potter, Alpena; Jno. W. Jochin, Ishpeming; Robt. G. Chandler, Coldwater; John Popp, Saginaw, F. S. Carlton, Calumet.

Minnesota Retail Hardware Ass'n.

Pres., W. H. Tomlinson, LeSueur.
V.-P., H. S. Cleveland, Minneapolis.
Sec., T. McCracken, Minneapolis.
Treas., G. M. Evanson, St. Peter.
Ex. Com., F. H. Hunt, Red Lake Falls; B. F. Kernkamp, St. Paul; Julius Schmidt, Wabasha; W. H. Tomlinson, LeSueur; A. C. Hatch, Battle Lake; Jos. Mason, St. Peter; Chas. F. Ladner, St. Cloud; S. R. Nelson, Owatonna; E. H. Loyhed, Fair bault.

Missouri Retail Stove and Hardware Dealers' Association.

Pres., B. F. Naylor, Marshall.
V.-P., Geo. R. Plowman, St. Louis.
Sec., F. N. Neudorff, St. Joseph.
Ex. Com., R. L. Hixon, Hannibal; F. A. Kannsteiner, St. Louis; J. W. Poland, Carrollton; W. A. Wengert, Kansas City.

National Hardware Association.

Pres., R. A. Kirk, St. Paul.
1st V.-P., John C. Koch, Milwaukee.
2nd V.-P., Brace Hayden, San Francisco.
Sec.-Treas., T. James Fernley Philadelphia.
Ex. Com., W. K. Belknap, Louisville; Samuel A. Bigelow, Boston; P. E. Strauss, Boston; J. D. Moore, Birmingham; R. M. Dudley, Nashville; W. S. Wright, Omaha.
Advisory Board, W. W. Supplee, Philadelphia; H. H. Bishop, Cleveland; John Bindley, Pittsburg; R. W. Shapleigh, St. Louis.

National Retail Hardware Dealers' Association.

Pres., W. P. Lewis, New Albany, Ind.
V.-P., Geo. Hubbard, Flint, Mich.
Sec., M. L. Corey, Argos, Ind.
Treas., H. T. Helgeson, Milton, N. D.
Ex. Com. Z. T. Miller, Bloomington, Ill.; Fred Neudorff, St. Joseph, Mo.; I. A. Sibley, South Bend, Ind.; H. A. Cole, Council Bluffs, Ia.; H. G. Cormick, Centralia, Ill.

North Dakota Retail Hardware Dealers' Association.

Pres., H. T. Helgesen, Milton.
V.-P., H. N. Joy, Hamilton.
Treas., W. H. Pinkerton, Lakota.
Sec., C. N. Barnes, Grand Forks.
Ex. Com., H. Harrington, Fargo; W. W. Jamieson, Wahpeton; H. F. Strehlow, Casselton; I. L. Newgard, Grafton; H. B. Allen, Jamestown; H. A. Mae, Church's Ferry.

Ohio Hardware Association.

Pres., O. M. Scott, Marysville.
V.-P., W. P. Bogardus, Mt. Vernon.
Cor. Sec., Geo. Gray, Coshocton.
Fin. Sec., Will C. Jones, Columbus.
Treas., H. G. Woodward, Sidney.
Ex. Com., Geo. B. Meyer, Cincinnati; Geo. V. Guyton, Ada; H. F. Rahe, Cleveland; J. Rohrbacher, Akron; A. H. Strome, Warsaw; Frank Winters, Lancaster; James B. Carson, Hamilton; J. W. Brown, Washington Court House.

Pennsylvania Retail Hdw. Ass'n

Pres., Geo. L. Moore, Brownsville
V.-P., Geo. J. Rudolph, Pittsburg.
Sec'y, J. F. Frye, Charleroi.
Treas., B. A. Maggine, Braddock.
Ex. Com., A. L. Casselbury, Pittsburg; E. E. Lyon, Greensburg; C. N. Savage, California; B. A. Maggine, Braddock; C. O. Shroyer, Dawson.

Philadelphia Hardware Ass'n.

Pres., Julius M. Aff.
V.-P., C. F. Geissler.
Sec., T. B. Hendricksen.
Treas., Edward H. Shannon.
Trustees, Frank Schmidt, Aaron I. Sanson, Jr., Lewis C. Glading.

St. Louis Stove Dealers' Ass'n.

Pres., F. A. Kansteiner.
1st V.-P., Aug. Steinmeyer.
2d V.-P., Aug. Gruendler.
Sec., A. F. Geschwindner.
Treas., L. J. Boehl.

Southern Hardware Jobbers' Ass'n.

Pres., J. D. Moore, Birmingham.
1st V-P., F. A. Heitman, Houston.
2d V.-P., Bruce Keener, Knoxville.
Sec., C. B. Carter, Knoxville, Tenn.
Ex. Com., W. M. Crumley, Atlanta, Ga.; O. B. Barker, Lynchburg, Va.; Chas. H. Ireland, Greensboro, N. C.; B. F. Eshleman, New Orleans.

Texas Hardware Jobbers' Ass'n.

Pres., F. A. Heitman, Houston.
1st V.-P., J. C. Bering, Houston.
2d V.-P., Ed. Strauss, Waco
Sec.-Treas., Robert Eikel, Houston
Ex. Com., Jas. Moroney, Dallas; R. F. Bell, Weatherford; W. L. Sanford, Sherman; A. E. Goeth, Austin.

Wisconsin Hdw Dealers' Ass'n.

Pres., John Hessel, Antigo.
V.-P., Otto Schlafer, Appleton.
Sec., C. A. Peck, Berlin.
Treas., George Leverenz, New Holstein.
Ex. Com., Henry Droegkamp, Milwaukee; Arthur Heins, Tigerton; E. H. Ramm, New London; J. Wilkie, Fond du Lac.

A new hardware store will shortly be started at Naponee, Neb.

L. A. Sanberg is a new Colon, Neb., hardware and implement man.

Card, Sturtevant & Co., Cambria, Mich., hardware dealers, have dissolved partnership.

Bowen & Zahner have taken possession of the McCullis hardware stock at Modale, Iowa.

Eastern & Co. succeed M. F. White & Co. in the hardware business at Moncelona, Mich.

D. C. Chase, of Webster City, Iowa, has purchased the hardware stock of F. L. Anderson.

Al. Tunistra and Otto Kuhn have purchased the hardware stock of H. L. Page, Belding, Mich.

It is said that American manufacturers of silverware are preparing to invade the English markets.

The Georgetown Hardware & Plumbing Co., capitalized at $5,000, is a new Georgetown (S. C.) concern.

The United States Screw, Nail & Machine Co. has been incorporated at Camden, N. J., with a capitalization of $100,000.

W. A. Hill, J. B. Hill and J. H. Hill are the incorporators of the Hill Hardware Co., Columbia, Miss., capitalized at $10,000.

During December the American Steel & Wire Co. and the National Tube Co. exported 11,000 tons of wire, wire nails and pipe.

The Page Woven Wire Fence Co., Adrian, Mich., advise us in a favor of Jan. 7th, thtat they are about to recapitalize at $6,000,000.

The Clark Novelty Co., Rochester, N. Y., are makers of a large line of faucets for beer cans, milk cans, oil cans and cream separators, of various sizes and styles.

W. E. McKinney, J. F. Van Allen, C. H. Wentz, Thomas Wight and A. Page are the incorporators of the Wardner Hardware Co., Wardner, Idaho; capitalized at $10,000.

The Omaha Bee of January 5 states there will soon be a readjustment of freight rates, and as they will be strictly maintained in the future, wire nails and hardware will be shortly marked up.

Among the brass and copper specialties manufactured by the Plume & Atwood Mfg. Co., 29 Murray St., New York, and 196 Lake street, Chicago, is the popular "Eagle" brand of copper rivets and burrs.

A. Ruhling, who was formerly in the retail hardware business in Chicago, and for the last two years has been in the business at Hayley and other Idaho points, was in Chicago the past week, visiting his family and incidentally his friends in the trade.

A press dispatch states that Memphis has been made the southern headquarters and distributing center for the American Steel & Wire Co., one of the constituent companies of the United States Steel Corpora-

tion. This company wil have a stock of 17,500,000 pounds of wire and nails at this point as soon as all shipments are completed.

The H. F. Brammer Mfg. Co., Davenport, Iowa, are manufacturers of the original improved Brammer washer, original O. I. C. pendulum washer, and original O. K. rotary, ball bearing washer. These washers have gold and copper bronzed hoops and castings.

Capt. Randleman & Sons, Des Moines, Ia., are makers of the popular Gee Whizz double reflex and adjustable washing machine, which is lined with galvanized metal as an insurance against leakage. These machines are absolutely guaranteed to give satisfaction.

J. J. Whirl, of the Ideal Mfg. Co., Detroit, was a recent caller at THE AMERICAN ARTISAN office. He was accompanied by an effective bodyguard, consisting of F. E. Silvey, of the M & D Range Co., Chicago, and Z. T. Miller, the well known Bloomington, Ill., hardware association leader.

Harkins & Willis, Ann Arbor, Mich., are makers of Jim's toaster, for toasting bread on a gas or gasolene stove. This toaster has a central wire cone which can be made red hot in a minute. The bread is then placed around in the wire holders. Four slices can be exquisitely toasted in two minutes, it is claimed.

The United States Co. has been organized in New York City, with a capital stock of $50,000, for manufacturing and jobbing hardware. They occupy a room in the building, 13-21 Park row, that city. Fred H. Cozzens is president, Horace C. Hutchins is vice-president and treasurer and R. W. Hall is secretary.

E. C. Atkins & Co., Inc., Indianapolis, Ind., favor us with an attractive art calendar for 1902. This calendar shows six attractive pictures of roses, violets, daisies, pansies and other attractive flowers, and calls attention to the fact that Atkins' saws carried off the highest awards at the Pan-American Exposition and two gold medals at the Paris Exposition.

There are all kinds of sash balances on the market; some are good, and others are indifferently good. The Caldwell sash balances manufactured by the Caldwell Mfg. Co., 2 Jones street, Rochester, N. Y., are a trifle higher in price than the majority of the sash balances on the market, but they are a great deal higher in quality, and consequently are handled by a great majority of dealers.

E. C. Atkins & Co., Inc., the well-known Indianapolis (Ind.) saw manufacturers, send us a handsome photograph of their factory, mounted in a handsome frame 22x28 inches in size. This gives a bird's eye view of their splendid series of factories, each one devoted to various specialized branches of saw manufacturing. We thank them cordially for the kind remembrance.

On Jan. 8 Marcellus Hartley, a leading New York capitalist, suddenly expired from heart disease while attending a meeting of the executive committee of the American Surety Co., that city. Mr. Hartley was in his 74th year and was a member of the gun firm of Hartley & Graham, and president and director of the Bridgeport Gun Implement Co, the Remington Arms Co. and the Union Metallic Cartridge Co.

Clark, Quien & Morse, Peoria, Ill., have had larger sales the past year than ever before, of their Peoria washing machines. One strong element of success in these washing machines is the fact that they are made with ball-bearings. They have a compound lever handle which greatly reduces the work of wash days. The motion used in vibrating the handle takes the strain from the back and lets the arms do the work.

The directors of the newly organized Pacific Hardware & Steel Co., of San Francisco, have elected Chas. E. Miller president, H. J. Morton first vice-president, A. L. Scott second vice-president, A. W. Milligan third vice-president, D. H. Kane secretary and Joseph Sloss treasurer. It is said this firm will have branches in Seattle and Los Angeles and agencies in the Hawaiian and Philippine Islands and oriental seaports.

J. Frank Cox, commandant of the military department of Fort Worth University, Fort Worth, Tex., is a keen admirer of the Fox razor, manufactured by the Fox Cutlery Co., Dubuque, Ia., as the following letter he recently wrote to this firm clearly shows:

"After using several razors that failed of giving anything like satisfaction, I called on my dealer to get me a razor that would shave a man with ease. He ordered me a "Fox," which I have been using for the past five months from three to four times a week with ease and comfort. I am pleased to give you this recommendation, if it can be put to your use."

The J. D. Warren Mfg. Co., Chicago, favor us with a very artistic memorandum book with celluloid cover. The cover shows reproductions of Roman art. Besides pages for memoranda one finds lists of antidotes for poisons, list of foreign coins with their value in U. S. money, tables of foreign weights and measures, with their American equivalents, interest tables from 6 to 20 per cent., official population of the United States, one hundred largest cities in the world, rates of postage, etc. One of these handy and handsome booklets will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

The J. Stevens Arms & Tool Co., Chicopee Falls, Mass., can be justly proud of their story of business expansion. This is an old established firm dating back to 1864. Their progress was slow but sure until the past few years, when its onward and upward stride has been made in giant footsteps. In 1895 they occupied 17,000 feet of floor space and employed 44 people. Three years later they employed 150 peoople and occupied 34,000 square feet of floor space. Last year their plant had expanded to take in 271,000 feet of floor space and employment was given to 900 people, or six times as many as in 1898 and twenty times as many as in 1895. On December 3, 1901, this firm added a factory containing 42,000 square feet of floor space. This addition will enable them to increase their output of rifles 50 per cent. With twenty times as many employes as seven years ago and with twenty times the amount of floor space they occupied then the firm cer-

tainly present an epitome, as it were, of the highest Twentieth Century progress.

NEW HARDWARE SPECIALTIES.

The Smith & Hemenway Co., 296 Broadway, New York, are placing on the market a very desirable line of hardware specialties. One of these is found in the

Fig. 1. Acme Ball Bearing Plate Caster.

Acme ball-bearing caster, which has been improved for 1902. It now has been made rustproof and has a solid steel disc for the small balls in the top of the caster.

Fig. 1 shows their latest style of plate caster and Fig. 2 their stem caster. Both styles are made in 1 inch, 1⅛ inch and 1¼ inch sizes. This company has one of the best equipped caster factories in the country,

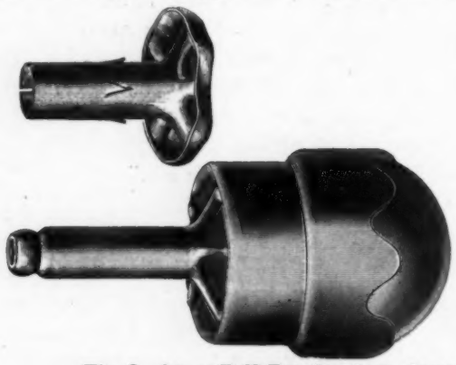


Fig. 2. Acme Ball Bearing Stem Caster.

and we are advised that they are prepared to make prompt shipments of any of their new patterns.

Fig. 3 represents the No. 186 divider brought out by this firm. It is a thoroughly up-to-date tool and the points are adjustable. The adjustment can readily be made by the set screw shown nearest the joint in

Fig. 3. No. 186 Divider.

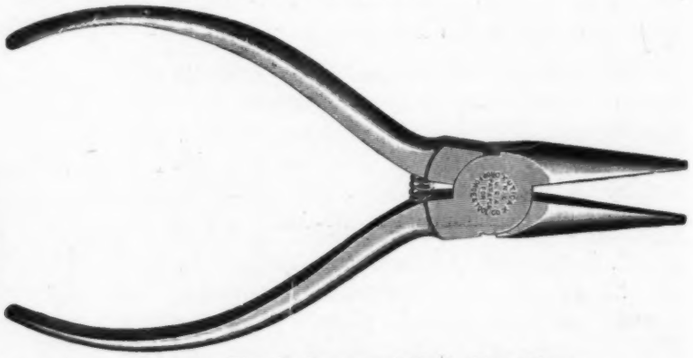


Fig. 5. Improved Chain Nose Plyer.

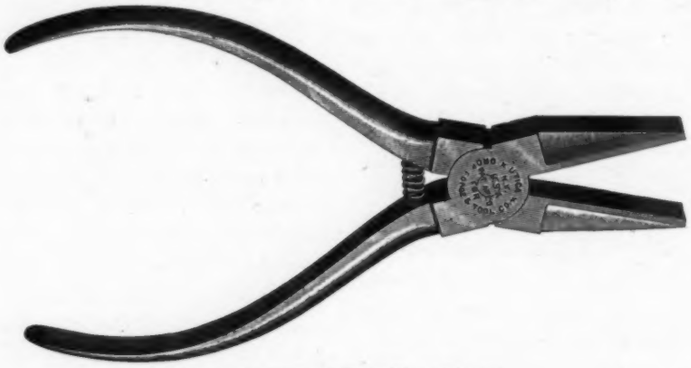


Fig. 4. Improved Flat Nose Plyer.

this tool in Fig. 3. This special feature will be very much appreciated by any one requiring the use of dividers. These dividers are made entirely of steel and is handsomely nickel plated and thoroughly finished.

Fig. 4 represents the Utica Drop Forge & Tool Co.'s improvement on a flat-nose plyer. This has a spring in the handle and is always ready for use.

Fig. 5 represents their latest pattern of chain-nose plyer, with spring applied same as in Fig. 3. These tools are forged from the highest character of tool steel.

The trade should write this firm for a copy of the fourth edition of the "Green Book of Hardware Specialties." When writing for same, kindly add: "Saw it in THE AMERICAN ARTISAN."

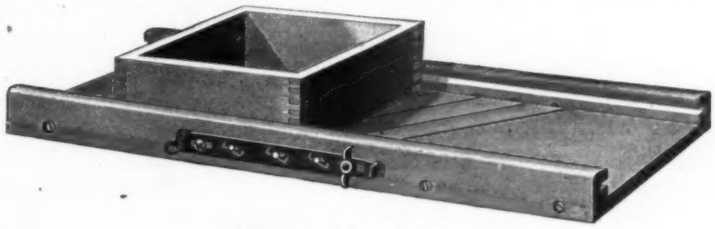
NEW DULUTH WHOLESALE HOUSE.

There will be a new wholesale hardware house at Duluth. The Kelley Hardware Co. is being reorganized and enlarged and will be known as the Kelley-How Hardware Co., B. W. How, of Sauk Center, Minn., having entered the concern.

The Kelley-How Hardware Company will have a capital of $300,000, and the corporation will date from Feb. 1. The officers will be: President, Michael Kelley; vice president, J. F. Killorin; B. W. How, treasurer; George W. Welles, secretary. The Kelley Hardware Company has always done considerable wholesale business in the line of heavy hardware, and has had four traveling men out, covering the field from Michigan to Montana. The new concern will enter the business on a much larger scale, dealing in heavy and shelf hardware, and mill and lumbermen's supplies.

ADJUSTABLE CROUT CUTTER.

Henry Disston & Sons, Philadelphia, Pa., are manufacturers of the adjustable crout cutter shown in the accompanying cut. This cutter is very simple in construction and can be adjusted to any cut by loosening thumb screws on sides, moving backward or forward as required. If the board warps, the knives may be kept in line with it by pulling the slide on the lowest side.

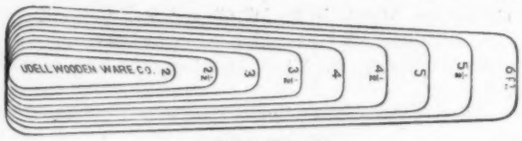


Adjustable Crout Cutter.

IRONING STANDS AND SKIRT BOARDS.

The Udell Works, Indianapolis, Ind., are manufacturers of the Ideal ironing board and stand and a skirt board, shown in the accompanying cuts. Udell's ironing stand is furnished with a five-foot board, also without a board. These stands weigh 50 pounds per dozen. Their ironing boards, shown in Fig. 2, are made of white wood, in lengths of 2, 2½, 3, 3½, 4, 4½, 5, 5 and 6 feet. This firm make a complete line of house furnishing woodenware, commodes, medicine cabinets, folding tables, ladders, etc.

Ironing Stands.



Skirt Board.

WHERE SCREWS ARE MADE.

A recent issue of a Providence, R. I., paper contains a write up of the factory of the Rogers Screw Co., of that city. We quote as follows from its interesting description of this plant:

"The main building is of brick, with extra heavy walls, and is three stories high. Two more stories can be added whenever necessary. Large windows and glass transoms admit the maximum amount of light and afford ample ventilation. The power plant, including the dynamo, is in a separate brick building, which also contains the forge and hardening and tempering furnaces. Artesian wells supply the greater part of the water for steam purposes and cleaning the screws. On the first floor are the heading machines of both single and double stroke, for flat and round heads, respectively. The rattlers for cleaning and brightening the screw blanks fed in the heading machines are located in the same room. The machine shop, containing lathes, planers, drills, grinding machines, hack saws and special tools, is on the opposite side, the middle part being taken up with the coils of steel, brass and bronze wire required in screw manufacture. A large power elevator is employed to carry the headed blanks to the second and third floors for subsequent operations. The shaving, slotting and threading machinery are on the two upper floors.

PREMIER LAWN MOWER ENTREPOT.

The Supplee Hardware Co., Philadelphia, have very strong claims for being considered the *premier entrepot* of high-grade lawn mowers in this country. This firm carry an unusually complete line of these goods, including the Pennsylvania, Pennsylvania Junior, Pennsylvania Golf, Pennsylvania Horse, Pennsylvania Pony, Pennsylvania Horse Golf, Continental, New Quaker City, Great American, Great American Ball Bearing, New Departure Belmont, Girard, Electra and Westfield mowers.

This firm plume themselves not a little on the fact that these mowers have received the highest award at every exposition or fair where exhibited, their list of medals and awards including the following: Gold medals at the Paris Exposition, Paris, 1900, and Pan-American Exposition, Buffalo, 1901. Silver medals at the Inventions Exhibition, London, England; Royal Horticultural Society, London, England; Brussels Exhibition, Brussels, and *Allgemeine Gartenbau Ausstellung,* Hamburg. Bronze medal at American Institute, New York. Bronze medal and certificate at World's Columbian Exposition, Chicago. First premium and certificates at the Sydney Exposition, Australia; Melbourne Exposition, Australia; Augusta National Exhibition, Augusta, Ga.; New Orleans Exhibition, New Orleans, La.; Los Angeles Fair, Los Angeles, Cal., and Pennsylvania State Agricultural Society.

WILL MEET AT THE METROPOLE.

The North Dakota Retail Hardware Association have perfected arrangements with the Hotel Metropole, at Fargo, and will make that hostelry their headquarters during their forthcoming annual convention, which will be held February 19th and 20th.

CHICAGO HARDWARE BOWLING LEAGUE.

A sensation of a decided warm nature was sprung at the last seance of the Chicago Hardware Bowling League. Messrs. Fry, Williams, Cooley, Rosene and Anderson, the affable young gentlemen who get their pay envelopes from the cashier of the Vaughn & Bushnell Mfg. Co., thought that the time had arrived in which the Hibbard, Spencer, Bartlett & Co. team, who have been touted as having a "cinch," should learn that there were other shirts in the Chicago Bowling League laundry. The first game went to the V. & B. team to the tune of 862-799. Of course the star team can lose one game you know and come out of a series with colors flying, but the record game went the way of the first—831-808—and disaster was turned into a rout when they took the third game, 850-754. Geo. B. Carpenter & Co., who have heretofore held the Vaughn & Bushnell team neck and neck, failed to take three straight from the Orr & Lockett Hardware Co., although three men in the latter team bowled 123, 125 and 136, respectively, on their winning frame.

The scores up-to-date follow:

	Won.	Lost.	Per Cent.
Hibbard, Spencer, Bartlett & Co.	30	6	833
Vaughn & Bushnell Mfg. Co.	24	9	727
Geo. B. Carpenter & Co.	25	11	694
Orr & Lockett Hardware Co.	16	17	485
H. Channon Co.	13	20	394
C. Sidney Shepard & Co.	12	21	364
Crerar, Adams & Co.	8	25	242
W. D. Allen Mfg. Co.	7	26	212

FIRE IN A GUTTER FACTORY.

Early on the morning of January 4, fire broke out in the pipe and gutter factory of Berger Bros. Co., Seventeenth and Clearfield streets, Philadelphia, and gained considerable headway before its discovery by the employes of an adjoining works. The fire department was prompt in responding to the alarm and quickly had the fire extinguished, but not until a small section of the second and third floors had been burned through and the stock damaged. The cause of the fire is unknown, but presumably came from sparks from outside sources, either from passing locomotives or an adjoining forge works. No hands were thrown out of work, and everything will be running in its usual order within a few days. The loss is principally on the building, which, as near as can be estimated at present, will range from $1,000 to $1,500.

DEATH OF J. WOOL GRISWOLD.

The trade will learn with poignant regret of the death of J. Wool Griswold, vice president of the Dillon-Griswold Wire Co., Sterling, Ill. This sad event comes as a shock to his many friends, as he was in apparently good health on Dec. 31st, and Jan. 2, at 9 a. m. expired suddenly, from heart disease, at the Virginia Hotel, Chicago, where he has been spending the winter. About three years ago he had a severe attack of appendicitis, and has not been in rugged health since. Mr. Griswold was in his fiftieth year, and leaves a wife, two daughters, Sarah and Bessie, and one son, John.

The funeral was held Saturday, and among the floral tributes was a large wreath, 26 inches in diameter and composed of pink and white carnations, white roses, hyacinth and smilax. Between six and eight yards of smilax was used in the base alone, with dozens of roses, carnations, and sprays of hyacinth used in making the piece. This was sent the widow by the office employes of the Dillon-Griswold Co. The sympathy of the trade will go out to his friends and business associates, in this their sad hour of loss.

BUSINESS CHANGES.

NEW FIRMS.

Princeton, Minn.—The Caley Hardware Co. has incorporated.

CHANGES.

Canastota, S. D.—Scott & Haden are succeeded by Scott & Necker.

STOPPAGES.

Gary, Minn—Pladsen & Milsten.

Edgerley, N. D.—F. A. Cornwell.

Atwater, Minn.—It is reported that the firm of Feig & Toensing, dealers in agriculture and farm implements, are closing out their stock.

Bloomington, Wis.—George Humphrey succeeds F. H. Fisher.

Alton, Ia.—A. J. Kooyman will be admitted into firm of A. H. Noethe.

McCallsburg, Ia.—Cole & Lock succeed E. A. Cole.

Anniston, Ala.—E. E. Cheatham is the successor of the Dixon Hardware Co.

Bessemer, Ala.—I. A. Lewis has purchased the stock of H. L. Bains and will take possession as soon as the transfer can be made.

Clinton, Mass.—W. H. Proctor succeeds Eugene O. Pratt.

Denton, Tex.—G. W. Wilson, formerly of G. W. Wilson & Co., has purchased the stock of the Long Hardware Co.

Escondido, Cal.—Ed. Churchill succeeds Arthur Jones.

MISCELLANEOUS.

Alhambra, Ill.—Gehrig's hardware store; fire.

Branchport, N. Y.—Edward Brown; fire

Boston, Mass.—J. Birnbaum, 274 Commercial street; fire; small loss.

Cambridge, Mass.—Frederick Glynn; fire.

Center Square, Pa.—Sylvester B. Drake; fire.

East Worcester, N. Y.—Egbert Snyder; fire; partially insured.

Jonestown, Miss.—Jonestown Hardware Co.; fire; loss, $2,000.

Marion, O.—Ryan & Burke; fire; loss, $1,500; fully insured.

Massey, Ont.—P. Anderson; fire.

Natchez, Miss.—Baker & McDowell Hardware Co.; fire; loss, $15,000; fully insured.

Osnabrock, N. D.—Bidlake & Kitchin; fire.

Paterson, N. J.—Samuel Sorenson; fire.

Pawnee, Okla.—C. T. Soulsby; fire; loss, $8,500; insurance, $5,000.

Perry, N. Y.—Olin, Peek & Grieve; fire; loss, $500; fully insured.

Toronto, Ont.—Thomas Fane; fire; 367 Yonge street; forty bicycles burned; insured.

Vermillion, O.—Bailey & Wilbur; fire; loss, $6,000; insurance, $4,000.

Woburn, Mass.—L. Waldo Thompson; fire.

Chatham Centre, N. Y.—Stephen Come; burglarized; loss, $40.

Advertising Department.

Our readers are invited to send in copies of their advertisements in the local press for criticism. All communications should be addressed to the "Advertising Department" of THE AMERICAN ARTISAN.

The accompanying advertisements of the E. M. Bush Hardware Co., Evansville, Ind., are interesting examples of retail hardware advertising. These two advertisements would be considered too crowded by some, perhaps, but they are certainly interesting. The words "store news" are written all over them, and the buying public will look them over to see what their hardware store has to offer. One point about these advertisements that I would call attention to is that faults and beauties alike, they show the stamp of originality.

About Knives

Pocket Knives make fine presents. Here you can select from over 250 patterns in one, two, three, four and six blades. They have wood, bone, stag, sterling and pearl handles, American, German and English makes, suitable for boys girls, ladies and genlemen, ranging in price from 10c to $5.00 each. We call especial attention to

30 patterns of 25c Knives,
63 patterns of 50c Knives,
41 patterns of 75c Knives,

The 50c and 75c grades fully guaranteed. New knives given if not satisfactory. The best values ever offered in Evansville.

Carving Knives—An elegant line from which to select a gift. Are in all the latest shape blades, made from very best steel, with rubber, celluloid, bone, genuine stag and pearl handles, with and without sterling ferrules. Prices range from

$1.25 a pair to $12.50 per set.

The better grades all warranted.

Breakfast Carvers Grow in Favor.
See Our Beautiful Assortment.

Table Knives—Our hardware store is the proper place to buy table knives and all kinds of cutlery if you want something that "holds an edge." Our prices upon table cutlery range from

50c to $6.50 per set.

Shaving Knives, or razors, American, German and English makes. We guarantee them and will replace any that do not hold an edge. Our "Star" razors in sets, with one to four blades, make a gentleman an acceptable present.

Come to us for useful presents.
We have them in abundance.

E. M. Bush Hardware Co.
503 and 505 Main St.

The man who wrote these announcements did not try to get up a weak imitation of some Wanamaker or Ivory Soap advertisements, but evidently followed his own ideas, producing an excellent display. Everything considered, these are good advertisements, but if any advertisements patterned after these were to appear at any other time of the year except Christmas, they would not meet my approval. Christmas is the only time, in so

Gift Giving

Now that provisions and coal are high and household necessities come first, it behooves all to husband their money and make it go as far as possible by buying useful Christmas gifts Below we submit a short list from our extensive stock from which you may select something for every member of the family. We omit prices, as they are right, as you well know, and a k if what you want is not "on the list" that you come to our store and

Let us help you find it.

For Boys and Girls.

Ice and Roller Skates, Wood and Steel Sleds Velocipedes and Tricycles, plain and rubber tire; Jack and Pen Knives, Patrols, Iron, Cycle, Tandem; Goat. Chief and Fire Ladder Wagons; Toy Wringers, Toy Irons, Scroll Saws, Ingersoll Dollar Watches Printing Presses, Tool Chests, the good kind; Toy Pistols and Caps, Cannon and Iron Banks, Children's Knife and Fork Sets, Bombs, Blank Pistols and Blank Cartridges, Safety Flobert Rifles, Child's Trays, Air Rifles eight different kinds; Boxing Gloves, Foot Balls, Striking Bags, Dumb Bells, Indian Clubs and McFadden Exercisers.

For Men and Women.

Breakfast and Dinner Carving Sets, with Rubber, Celluloid, Genuine Buck Horn and Pearl Handles; Table Knives and Forks, with Cocobola, Ebony, Bone, Rubber and Celluloid Handles, with and without Sterling Ferrules; 1847 Rogers's Triple Plated Knives, Forks and Spoons, also a cheap line Plated Knives, Forks and Spoons, Fruit Knives; 250 patterns Pocket Knives, with Sterling Silver, Pearl and Buck Horn Handles; Razors, single and in sets: Shears and Scissors, Nuts Cracks and Picks, Massage and McFadden Exercisers, Golf Clubs, Balls and Caddy Bags, Carpet Sweepers, Coal Vases, Brass and Wrought Iron Fire Sets, Flower Stands, Fancy Tea and Coffee Pots, Chafing Dishes, Food Choppers Bird Cages, Delft and Stransky Granite Ware, Roasting Pans, Scales, for fancy cooking: Bread Boxes, Mrs. Potts' Irons, Clothes Wringers, Washing Machines,

E. M. Bush Hardware Co.
503 and 505 Main St.

far as I know, when people will read mere enumerations of names. In April or September, March or July, people would skip the lists of names appearing under the headings "For Boys and Girls," and "For Men and Women," but at the glad Yuletide time people are naturally looking for just such lists as these.

THE WHEREFORE OF THE WHY.

One day George Stephenson, seeing a train drawn by one of his engines, asked a friend: "What makes that train go?" "The engine," was the reply. "What moves the engine?" "The steam." "And what makes the steam?" "The coal." "But what has produced the coal?" His friend remained silent for a moment after this unforeseen question, and Stephenson replied to it in a word—"The sun."—Ex.

Heating and Ventilating.

The American Heating Co., Kittery, Me., is a new concern, capitalized at $1,000,000.

The S. M. Howes Co., Boston, Mass., are sending the trade a card calling attention to a reduction in the price of furnace fittings.

A. I. Sanborn, J. D. Robertson and George Clements are the incorporators of the Phœnix Steam Heating Co., Chicago, capitalized at $25,000.

L. A. Hoffman & Son succeed Louis A. Hoffman in the plumbing, heating and tinning business, at 254-256 North Broad street, Elizabeth, N. J.

J. B. Roberts, F. R. Roberts and J. A. Roberts are the incorporators of the Twentieth Century Acetylene Co., Buffalo, N. Y., capitalized at $100,000.

L. D. Shoemaker, R. M. Geddes and George McCann are the incorporators of the American Warming & Ventilating Co., Elmira, N. Y., capitalized at $10,000.

The Schneider Closet & Heater Co. have sold out their business of manufacturing water heaters and plumbing specialties to the O. K. Brass Works, Ann Arbor, Mich.

Otto Arnold, Ludolph Partong and A. L. Partong are the incorporators of the Schaeffer-Badenberg Mfg. Co., of Brooklyn, capitalized at $100,000, for the manufacture of steam fitters' and plumbers' supplies.

The National Association of Master Steam and Hot Water Fitters are sending out notice to the effect that manufacturers and dealers on their list in accord are extended the privilege of furnishing catalogues to be kept on file at the National headquarters, 260 West Broadway, New York.

George Auer and E. L. Compton, of the Auer Register Co., Toledo, O., were recent callers at THE AMERICAN ARTISAN office. This firm has had a large business the past year, this register having proven very acceptable to the heating fraternity, owing to its numerous "talking points."

The Chas. Smith Co., 122 Lake street, Chicago, send us a two-color circular showing their Hero cast iron furnace, with deep ash pit, cup joints, corrugated fire pot and dome. It has a reversible flue which causes the heat to pass around the radiator twice and saves the fuel. Smith's triangular revolving grates have great strength. Each bar is looped separately, hence the replacement of a bar is an easy matter.

The Boynton Furnace Co., 147-149 Lake street, Chicago, and 207-209 Water street, New York, have enjoyed a large demand for their furnaces, hot-water and steam heaters, and are looking forward to an enhanced trade the coming year. This firm will make a number of important improvements in their line for 1902, and will maintain the enviable reputation their goods have secured for efficiency and durability.

The Akron Furnace Co., Arkon, O., are making a very desirable furnace in their Solid Comfort. It is heavy and durable, very attractive in design, with extra good castings and mounting. It 's an all-cast furnace, suitable for low cellars, with very large ash pit and ash-pit doors, corrugated fire pot, corrugated dome, and one-piece solid-cast radiator. This firm is after carload orders and make an exceptionally good price on same.

The Warwick Furnace & Mfg. Co. has been incorporated at Marsillon, O., with a capital stock of $20,000. They will manufacture a steel hot-air furnace, and will do general repair work in the line of castings, machinery, etc. The officers of this company are H. B. Croxton, New Philadelphia, O., president; S. S. McMeeken, Mansfield, O., vice-president; D. S. Souers, Marsillon, O., secretary and general manager. This firm will locate their works at Warwick, O., and their general offices at Massillon.

TICKET FOR A. S. H. V. E. OFFICES.

The Nominating Committee of the American Society of Heating & Ventilating Engineers have prepared the following ticket for 1902:

PRESIDENT.

Alfred E. Kenrick, Brookline, Mass.
Reginald Pelham Bolton, New York.

FIRST VICE-PRESIDENT.

Andrew Harvey, Detroit.
Charles M. Wilks, Chicago.

SECOND VICE-PRESIDENT.

Robert C. Clarkson, Philadelphia.
Albert A. Carey, New York.

SECRETARY.

William H. Mackay, New York.
Herbert A. Joslin, New York.

TREASURER.

Judson A. Goodrich, New York.
B. F. Stangland, New York.

BOARD OF MANAGERS.

Prof. John H. Kinealy, St. Louis.
Prof. Rolla C. Carpenter, Ithaca, N. Y.
John Gormley, Philadelphia.
William Kent, Passaic, N. J.
James Mackay, Chicago.
C. B. J. Snyder, New York.
J. J. Blackmore, New York.
James H. Davis, Chicago.
S. G. Neiler, Chicago.
John A. Payne, Irvington, N. Y.

THE IDEAL FITTER.

The American Radiator Co., Lake and Dearborn streets, Chicago, send us a neat little booklet entitled "The Ideal Fitter." The goods shown in this volume include Ideal Sectional 12-in., 18-in., 24-in., and 36-in.-steam boilers, Ideal Premier steam boilers, Ideal Invincible steam boilers, Ideal Junior steam boilers, Ideal

sectional 12-in., 18-in., 24-in., and 36-in. water boilers, Ideal Premier water boilers, Ideal portable water boilers, Ideal Invincible water boilers, Ideal Junior water boilers, Ideal Sectional tank heaters, Galvanized expansion tanks, Ideal automatic expansion tanks, steam radiator valves, hot water radiator valves, union elbows, Libra automatic air valves, Runell automatic air valves, Powers' temperature regulators, O. S. distributers and many other steam and hot water specialties. This booklet, which is of convenient pocket size, will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

A PROBLEM IN HEATING APPARATUS.

TO THE AMERICAN ARTISAN.

I have a problem in a heating apparatus for hot water for a bath tub. The party wants to place the hot water boiler in the bath room and have the pipes pass through the cellar. He also wants to heat his boiler with a gasolene torch when the kitchen stove is not in use. Please illustrate in THE ARTISAN the best way for me to locate this apparatus. Respectfully,

Illinois, Jan. 5, 1902. JAMES W. BROWN...

ANSWER BY J. J. LAWLER.

It is not practical to locate the hot-water boiler in the bath room in this case and carry all the pipes in the cellar which are to connect the boiler with range in kitchen, hence your customer asks you to do something that no one can do. But the hot-water boiler may be placed in the bath room and heated from the waterback in kitchen stove by making the pipe connections as shown in the accompanying illustration, Fig. 1. In this method of construction the top pipe from water is carried to side of kitchen wall and then rising on the wall to a point near the ceiling, and then along the side wall with a slight rise to bath room, connecting to boiler as shown, while the lower pipe from waterback is brought down into the cellar, and rising to bottom of boiler as also shown in sketch. It may be that the lady of the house objects to pipes passing along the kitchen wall, but this is good enough for any house where a sink is tolerated in a bath room. The illustration, Fig. 2, is a floor plan of the house, and the dotted lines between range in kitchen and boiler in bath room represent the hot-water pipe, and in making the pipe connections on top of boiler be sure to draw all hot water from top of tee to which the hot-water pipe from waterback connects, as this will relieve the pipe of air each time warm water is drawn from the system. We have not been told what source of water supply there is for this job, but if there is a street supply it will be all right as shown, and if an open tank is used, from which the system will receive its supply, that tank must be located some distance above the top of the hot water boiler. We would not recommend using a gasolene torch for heating the boiler at any time, for the reason that the writer is not acquainted with one that is either safe or practical for such purposes. If there is gas in the house for illuminating purposes it can also be used for heating the water, by attaching a small gas water heater to the boiler, plenty of which are in the market.

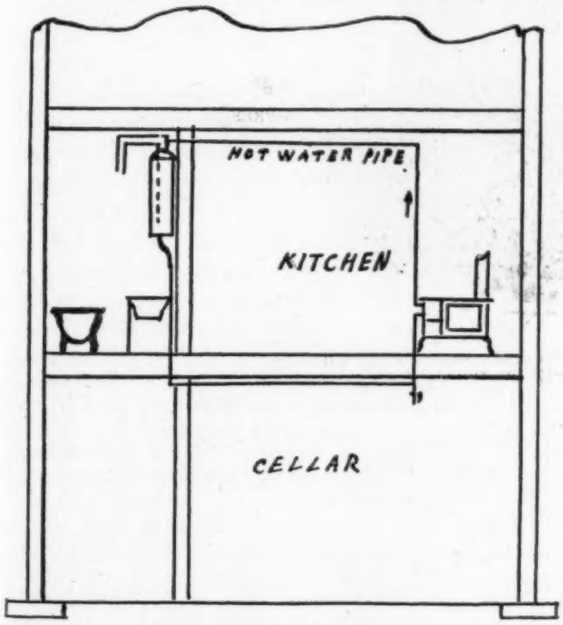


FIG. 1.

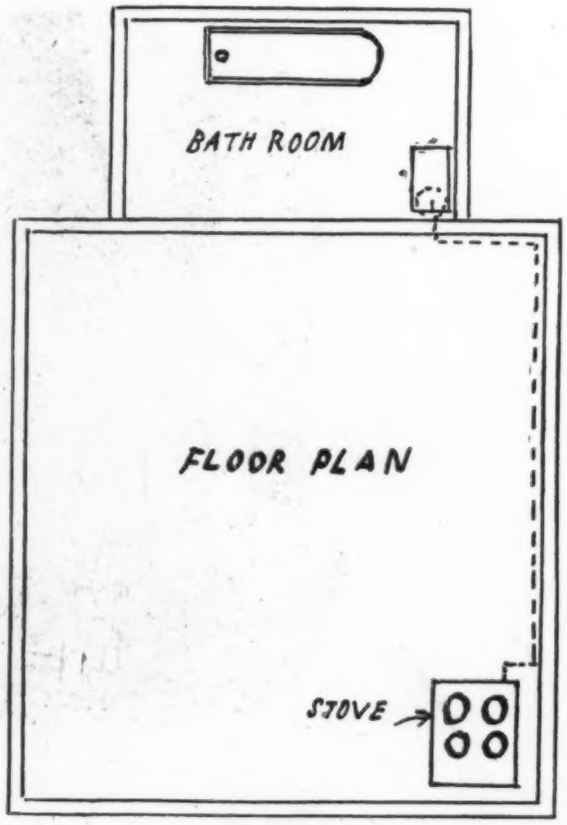
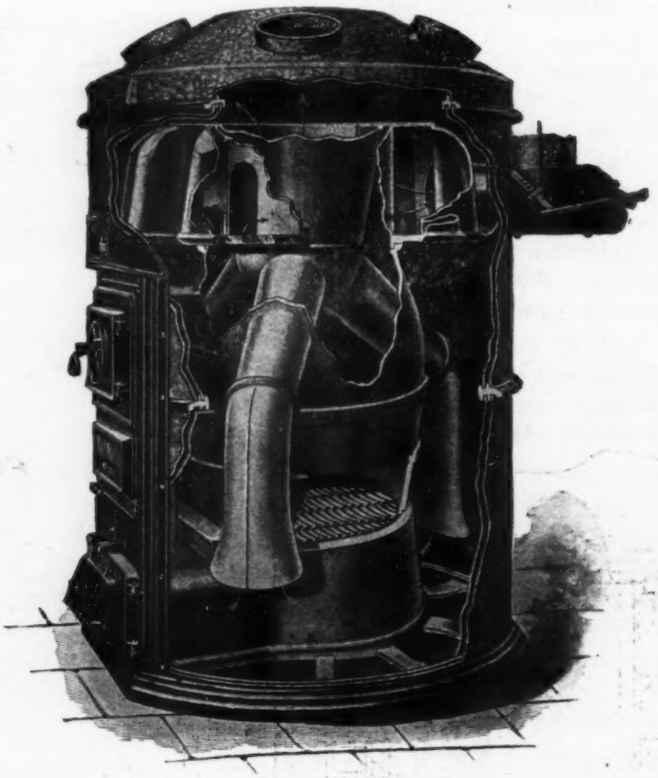


FIG. 2.

THE coffee importations of the United States will, in the calendar year 1901, be the largest in the history of our import trade. Eleven months' figures of the Treasury Bureau of Statistics show that the importations of coffee amounted to 967,969,585 pounds in the eleven months ending with November, against 707,496,152 in the corresponding months in 1900.

RICHMOND FURNACES.

The accompanying cut shows the Richmond furnace, series 210-300, manufactured by the Richmond Stove Co., Norwich, Conn., for whom the Chicago Heater & Supply Co., Chicago, and Rumsey & Sikemeier Co., St. Louis, Mo., are Western agents. All parts of this furnace are made of the best quality of cast iron. All joints are so constructed that when properly erected the furnace is absolutely gas tight. The casings are constructed double. The base ring is perforated and allows a circulation of air between the two casings, which is discharged into the top of the air chamber. The feed and ash pit doors, which are of ample proportions, are fitted to a large and heavy front shield. The ash pits have been made deep, thus securing a free passage of air to all parts of the grate. A dust flue, with a damper, connects the ash pit with the combustion chamber, allowing all dust to pass into the chimney.



Richmond Furnaces, Series 210-300, Portable with Double Casings.

HOW TO FORECAST THE WEATHER.

The ordinary person makes no distinction between one cloud and another, though by some meteorologists they are divided into four distinct groups; the heaped up cumulus; the delicate, feathery, curling little clouds, named cirrus, so high as to be frozen, often, into minute needles of ice; the wide-spreading sheets of cloud named stratus, which, seldom more than half a mile above the earth, often come down to envelope us in fogs of mist; and the dark, unmistakable nimbus, very soon causing the water that left the earth as vapor to be restored as rain.

The clouds owe their different forms to different physical states of the atmosphere, to which are also due the aerial currents, which often flow in directions other than the currents or winds prevailing close to the earth.

In weather forecasting, no clouds are worthy of such attention as the cirrus clouds, which attain a greater elevation than any others, averaging in summer a height of five or six miles above the earth. Their sudden appearance in a clear sky is generally a signal of foul weather, especially when their streamers have an upward tendency, for this indicates that the clouds are falling. After heavy rains, on the other hand, the formation of these clouds is often a sign of improvement.

When cirrus clouds appear in summer, the assumption is that rain will occur in two or three days. They are seldom seen in winter, and never for long. When cirrus clouds assume the form of stratus, at any altitude of four or five miles, their persistence is an almost certain sign of rainy weather. If, on the contrary, they remain of small size and quickly disappear, no change is to be apprehended.

Cumulus clouds vary enormously in size, but so long as they remain of moderate dimensions, in fine weather, they indicate a continuance of brightness. But when, in hot weather, they grow exceptionally large, they give warning of storms, with high temperature—and with great certainty when they assume a dome-like shape.

The ordinary stratus, the fog of the sky, is common in all seasons, but is generally observed in the morning or evening. It causes fine rain, seldom of very long duration.

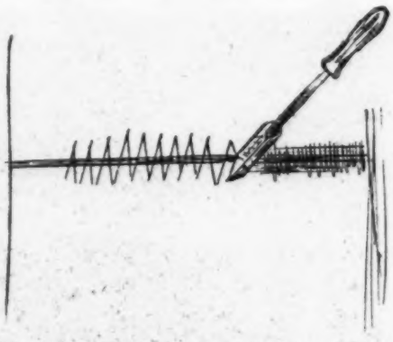
None can mistake the nimbus formations, those dark, heavy-looking masses, with clearly-defined outlines, the certain precursors of immediate rain. They may attain the size of immense mountains of vapor, the base less than a mile above the ground, and the summit as high as five miles. Some nimbus clouds have been calculated to contain as much as 200 cubic miles of vapor!—Pearson's Magazine.

Tinshop.

SOLDERING STANDING SEAMS.

TO THE AMERICAN ARTISAN.

B. E. Anderson, of Dawson, Minn., in last issue of THE AMERICAN ARTISAN has given you precisely my views of soldering standing seams. But I wish to add to this a movement of the copper bit which will assist, to a great extent, the tinner who has this difficult work to contend with. (As per illustration.) After preparing seam, apply proper flux moderately and for a short distance at a time, then with soldering copper, heated to a proper temperature to allow solder to flow smoothly, and tinned side of bit placed flat upon the seam, begin at top, with iron tilted at about an angle of 45°, drawing alternately backwards and forwards, to and from each side of seam, at the same time working



toward bottom of vat, and covering or tinning each side of seam a space of from one-half to three-fourths of an inch; this serves to keep up a uniform temperature and allows the solder to soak well into the seam, or loped and nailed, as it may be, and if soldering galvanized iron mix with your raw acid one-fifth part of killed spirits, or muriatic acid cut in zinc, in small quantity only. I know of no flux to take the place of raw acid for galvanized iron, and when using same I only apply just what I can cover with iron before acid ceases cutting zinc on the seam to be soldered. Never allow acid to remain on the iron till it turns the sheet black.

I also keep a special set of coppers for galvanized iron and zinc work, aside from all coppers and tinning fluxes for bright tin work, and never contaminate zinc oxides with any other solders or tools, a small piece of zinc or babbit mixed unknowingly or carelessly with your pot metals for plumbing purposes will destroy metal, pot and ladle, unless you are prompted to guard against this it will cause you a great deal of trouble and expense, therefore, never lend these tools to smiths or wagon makers for running boxes in machinery. This will apply also to your soldering furnace; if you feel under obligations to lend this, substitute your blow torch, if any. Be also very careful in changing swabs with which you apply your flux; if you wish to get the best results from all things avoid contamination.

This applies more to the uninitiated, who will, I hope, take these points into consideration.

W. R. WILLIAMS.

Antioch, Ill., Jan. 5, 1902.

ELBOW PATTERN.

TO THE AMERICAN ARTISAN.

The following elbow pattern is submitted in re-

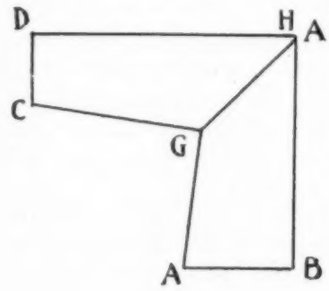
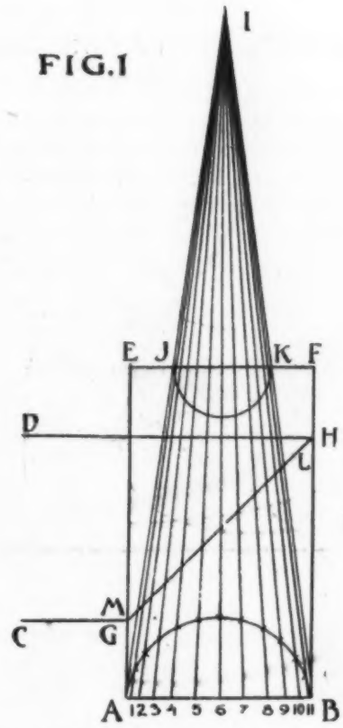


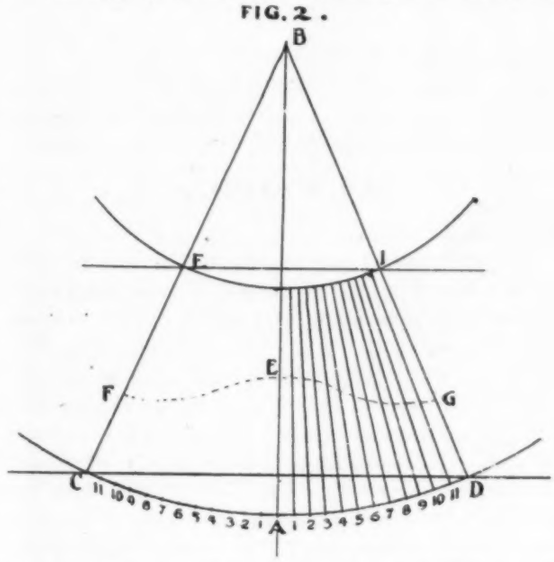
FIG. 1



sponse to a recent request in your paper:

In Fig. 1, let *B, H, D* equal angle of elbow, and

FIG. 2.



H, G the mitre, *A, B* the large end and *J, K* the small

end. Extend lines *B, K* and *A, J* till they meet at *I*. Draw semi-circles *A, B* and *J, K*, step off on semi-circle with dividers an equal number of spaces and continue same through semi-circle *J, K* till they meet at *I*.

Fig. 2 shows stretchout plan, with radius *I K* and *I B*. Let *H, I* equal circumference of small end and *C, A, D* circumference of large end. Set off on each side of *A* the same number of equal distances as in *A, B*, Fig. 1, and passing through small semi-circle to meet at *B*, as in Fig. 1.

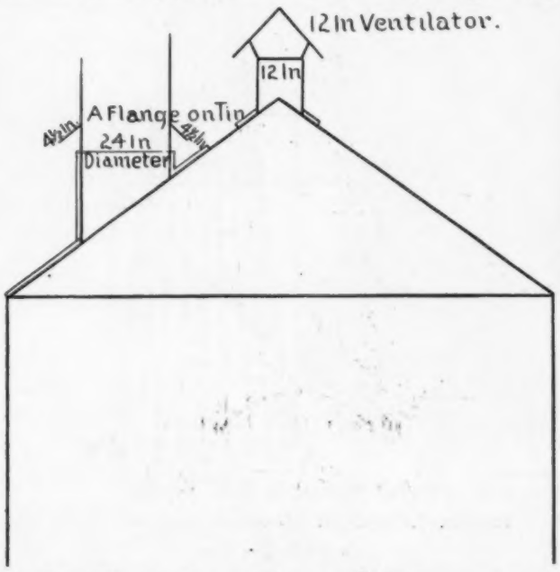
Make *A, E* equal to *B, L*, Fig. 1. Make *C, F* and *D, G* equal to *A, M*, and each of following lines 1, 2, 3, 4, etc., trace through and allow for lock or lap.

Antioch, Ill., Dec. 23, 1901. "W. R. W."

DESIRES FIGURES ON GALVANIZED IRON WORK.

To The American Artisan.

I would like you to ask your readers of The American Artisan that are full-fledged tinners to give me figures on No. 24 galvanized iron work. Two 24-inch roof flanges to go around a 24-inch smoke stack for one-third pitch roof. What is the large flange



worth? What is the small one worth that goes on top? Also a 12-inch ventilator, same as shown in cut?

Ranger & Beckman.

Medaryville, Ind., Jan. 3, 1902.

SOLDERING SEAMS.

To The American Artisan

In response to the request of the Battle Creek, Mich., tinner for the best method of repairing upright seams in a large tank I will say, that I had one to repair some time ago. It was a round galvanized-iron tank, held about 800 gallons. I first soldered it as well as I could on the inside, I then made a cement of about half and half venetian red and red lead, mixed it with boiled oil, used just enough dryer in it to make it set good, I then coated the seams I had soldered well with this mixture, then I took some rags that were soaked in it and spread them over the seams and coated the whole thing over in good shape. The paint wants to be just thick enough to put on a good thick coat and not have it run. This tank I speak of was boxed in and could not be moved so had to be soldered or repaired as it stood and I suppose our Michigan friend's tank is in the same condition. This job was done about a year ago and has not leaked yet. I find this also a very useful cement for repairing old gutters that cannot be soldered, just paint a rag into them in the same manner and they will last a long time. I also use it for repairing iron roofs and where solder will not stick. Will you please state whether the tapering elbow wanted is for a two or more sectioned elbow.

F. W. MacDonald,

Marengo, Ill., Dec. 19, 1901.

SOME HANDSOME METAL CEILINGS.

The accompanying cuts show some handsome metal ceilings that Friedley & Voshardt, 194-202 Mather

Fig. 1 Metal Ceiling in Hunter Building.

street, Chicago, have recently erected in Memphis, Tennessee.

Fig. 1 shows the metal ceiling in the Hunter Building, that city, the stately design harmonizing admirably

Fig. 2 Metal Ceiling in Napoleon Hill Building.

with the majestic design of the building. In Fig. 2 the ceiling in the Napoleon Hill Building is shown. There are 600 squares in this attractive ceiling, as well as two miles of beam molding. This firm's business in metal

ceilings has been steadily increasing. Their ceilings are made of Nos. 28 and 29 gauge soft steel and are extensively used in public buildings, such as churches, stores and schools, as well as residences. They claim for their patent jointed ceilings, elegance of design, variety of combination and simplicity of application.

This firm have just issued a handsome catalogue showing a few of their many designs that can be made up of the various panels, borders, etc. This will be forwarded the trade on application. When writing for same, kindly add: "Saw it in THE AMERICAN ARTISAN."

ARCHITECTURAL SHEET METAL ORNAMENTS

The Gerock Bros. Mfg. Co., 1252 Manchester avenue, St. Louis, Mo., are manufacturers of a complete line of architectural sheet metal ornaments, statu-

Architectural Sheet Metal Ornament.

ary, etc., in sheet zinc, brass, copper or cast brass, a specimen of which is shown herewith. The secret of their success in making these goods lies in their process of cleaning.

NOTES AND QUERIES.

ARCHITECTURAL JOURNALS.

From Powers Bros., Henry Ill.:

We would like the names of leading architectural journals?

Ans.—American Architect, 211 Tremont street, Boston, Mass.; Architecture & Building, 23 Warren street, New York; Architects' & Builders' Review, 5 Broadway, New York; Architectural Review, Boston, Mass.; Architectural Record, 14 Vessey street, New York; California Architect, San Francisco, Cal.; Kansas City Architect, Kansas City, Mo.; Inland Architect, Chicago, Ill.

METAL SPINNING LATHE.

From Willis Mfg. Co., Galesburg, Ill.:

Where can we buy metal-spinning lathes?

Ans.—Ferracute Machine Co., Bridgeton, N. J.; Flather & Co., Nashua, N. H.; Garvin Machine Co., Spring and Varick streets, New York; Gould & Eberhardt, Newark, N. J.; Menden Machine Tool Co., Meriden, Conn.; Pratt & Whitney Co., Hartford, Conn.; Waterbury Farrell Foundry & Machine Co., Waterbury, Conn.; West Mfg. Co., Buffalo, N. Y.

FUEL OIL BURNERS FOR COOK STOVES.

From D. D. Darby, Abingdon, Ill., and others:

Where can I buy fuel oil burners for cook stoves?

Ans.—Blue Flame Oil-Gas Co., 58 W. Randolph street, Chicago.

TIN SCRAP.

From "Reader," Chicago:

Would state, in reply to query in January 4 issue regarding disposal of tin scrap, that it can be sold to W. G. Eisengart, 77 Jackson boulevard, Chicago, and the Johnston & Jennings Co., Cleveland.

BALL-BEARING CASTER.

From C. G. Schlegel, Kenesaw, Neb.:

Where can I buy a ball-bearing caster?

Ans.—Smith & Hemenway Co., 296 Broadway, New York; Lussky Payn & Co., 261 Franklin street, Chicago; Standard Caster & Wheel Co., 318-326 East Twenty-third street, New York.

FORTUNE GAS RANGE.

From Globe Steel Range Co., Kokomo, Ind.:

Who makes the Fortune gas range?

Ans.—Thomas Roberts and Stevenson Co., Philadelphia, Pa.

SASH WEIGHTS.

From E. L. Sommers, Chicago:

Would like addresses of manufacturers of sash weights, located outside of Chicago.

Ans.—Johnston & Jennings Co., Cleveland; Dickson Mfg. Co., Scranton, Pa.; Emporia Foundry & Machine Works, Emporia, Kan.; Ewald Over, Indianapolis, Ind.

AUTOMATIC FIRE EXTINGUISHERS.

From Casper Hardware Co., Marshall, Mich.:

Where can we buy automatic fire extinguishers?

Ans.—International Sprinkler Co., Philadelphia, Pa.; Automatic Fire Alarm & Extinguisher Co., Ltd., 413 Broadway, New York; Harden Hand Grenade Fire Extinguisher Co., 51 Dearborn street, Chicago; Muskegon Chemical Fire Engine Co., Muskegon, Mich.; Fire Extinguisher Mfg. Co., 357 Canal street, Chicago.

ITEMS.

P. S. Naughton, William T. Rogers and Alexander Murray are the incorporators of the P. S. Naughton Slate Roofing Co., St. Louis, capitalized at $2,000.

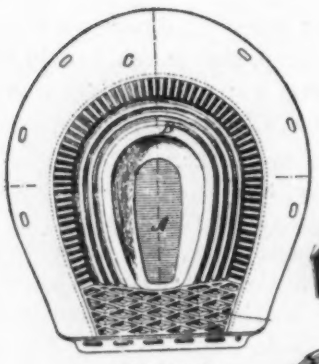
It is reported that the American Can Co. will centralize its properties. It is estimated that this company has a capacity of about 4,000,000 boxes of coke tin plate annually.

The La Crosse Steel Roofing & Corrugating Co., La Crosse, Wis., have enjoyed a very prosperous year's business in the line of eaves trough, conductor pipe and elbows, roll and cup standing seam corrugated and plain roofing, crimped or rock-faced brick, cornices, skylights, finials, ventilators, cut-offs, crestings, etc.

The Willis Mfg. Co., Galesburg, Ill., make a complete line of architectural sheet metal ornaments of every description. They would be pleased to send the trade one of their latest catalogues, which is fresh from the press, and contains a great variety of up-to-date patterns in this line. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

Walter D. Coles, acting as referee in bankruptcy, will offer at pubic sale the property of the Artistic Enameling Works, St. Louis, in Room 416 Security Building, 319 N. Fourth street, that city, at 2 p. m., January 23, 1902.

Patents.



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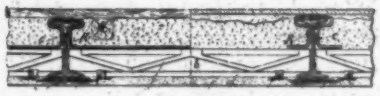

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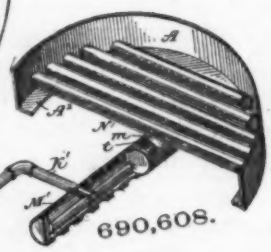

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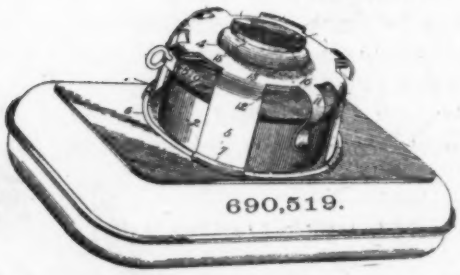

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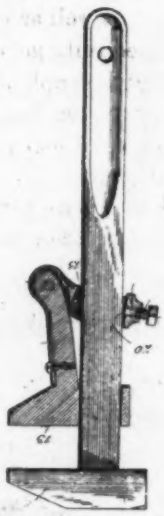

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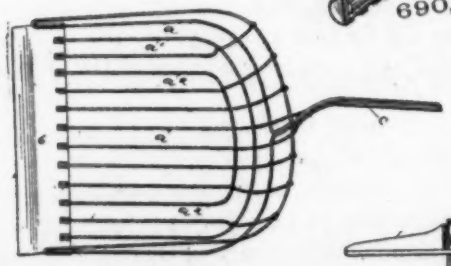

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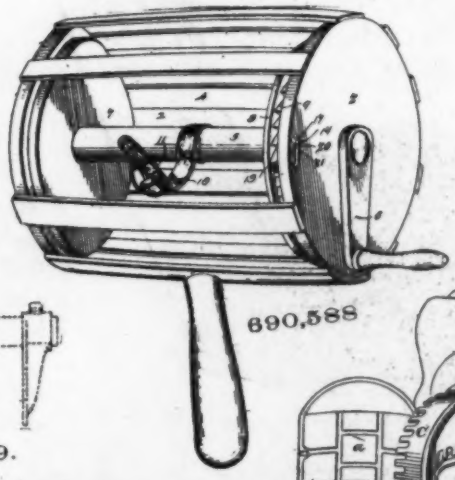

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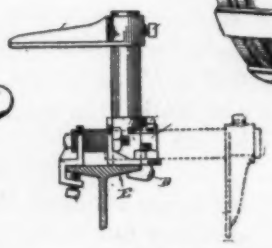

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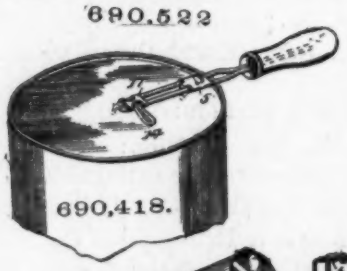

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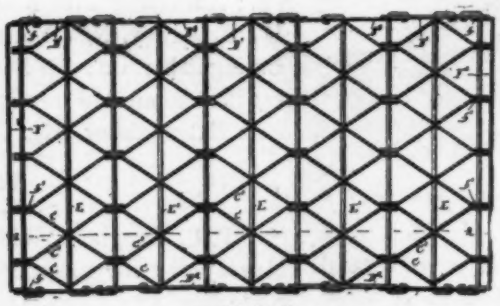
690,526.



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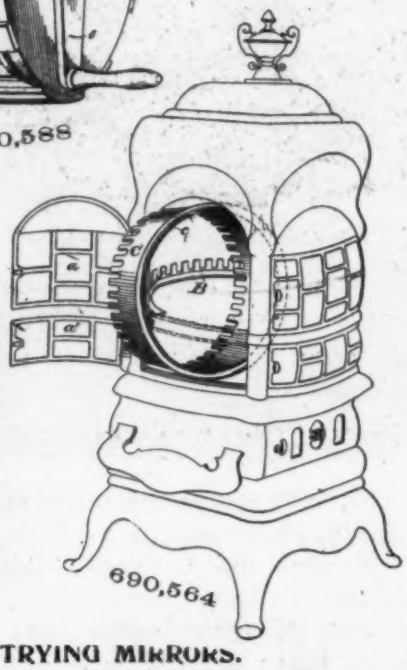

690,564

690,564—Stove. George M. Cocke, Milwaukee, Wisconsin.

690,551—Mat. Albert Baumgarten, Freeport, Ill.

690,526—Roofing Material. Frederic S. Miller, Brooklyn, N. Y.

690,588—Clothes-line reel. Paul Krex, South Bethlehem, Pa.

690,418—Can opener. George W. Gomber, Conyngham, Pa.

690,407—Wrench. Frank W. Dent, Waukesha, Wisconsin.

690,522—Scoop. Henry H. Hodell, Cleveland, Ohio.

690,519—Burner attachment for dinner pails. Sterne H. Gartrell, Kansas City, Mo.

690,482—Hoof pad. August C. Tappe, Cincinnati, Ohio.

690,608—Gasolene burner. William C. Rand, Lewiston, Me.

690,646—Ceiling. Joseph Freckmann , Hildesheim, Germany.

690,669—Attaching device for drill braces. John F. Steckenreiter, Chicago, Ill.

TRYING MIRRORS.

Of two women in a furniture store shopping for mirrors, one every now and then would place the tip of a finger against the face of a mirror and look at that point narrowly.

"Why, what on earth are you doing?" said the other.

"I am testing the mirrors," said the one who had thus applied her finger tip to them. "You place the tip of your finger against a mirror," she continued, "and you will, of course, see in the glass your finger reflected, the tip of the reflected finger and of your own flesh and blood finger all but meeting.

"But they don't quite meet; they are separated by the thickness of the glass, what ever that may be; and this best will show its thickness.

"If it is a good thick glass you will observe quite a little space between the two finger tips, and, generally, the thicker the glass, the better it is.

"If it is a thin, fragile glass, and some mirrors are of glass not much thicker than tin, you will see your finger tips so close together that you would hardly think you could pass a piece of paper between them. But whatever the thickness may be, it will be indicated by the space between the finger tips."—New York Sun.

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TRADE WITH THE PHILIPPINES.

The prominence given to the commerce between the United States and the Philippine Islands through the recent decision of the Supreme Court and the necessity for legislation on that subject lends especial interest to some figures prepared by the Treasury Bureau of Statistics relative to the present imports from the Philippines and the constant demands of the United States upon the tropics for articles of daily requirement. These figures show that the total value of imports from the Philippines in the ten months ending with October, 1901, were $3,186,953. Of that sum only $222,797 was dutiable, and $2,964,156 was free of duty. Of the dutiable imports, $188,159 represented the value of sugar, the value of all other dutiable articles being $34,638. Of the free importations, $2,945,771 was manila hemp, and all other free articles, $18,385. The importation of hemp from the Philippines in 1901 shows a large reduction, compared with the corresponding months of 1900, due in part to the small production of hemp in the islands during the crop year of 1900, and in part to a great reduction in price. In the ten months of 1900, ending with October, 27,966 tons of manila hemp imported was valued at $5,225,261, and in the same months of 1901, 20,579 tons of hemp imported from the islands was valued at but $2,945,771, the decrease in price thus being from $187 in 1900 to $143 per ton in 1901 for the period under consideration.

The very small proportion of our sugar consumption which the Philippine Islands are supplying is shown by a comparison of the above figures of sugar imported from the Philippines with those of our total sugar importations during the year. The total importation of sugar into the United States in the ten months ending with October amounts to about 4,000,000,000 pounds, valued at about $100,000,000; and of this enormous total, only 11,424,000 pounds, valued at $138,159, came from the Philippine Islands. In other words, they have supplied during the present year about one-fifth of one per cent of the total value of our importations of sugar. The October report of the Bureau of Statistics shows that our importation of sugar from all countries except Hawaii and Porto Rico amounted to 3,346,065,267 pounds, valued at $72,985.084. The reports from the Collector at Hawaii show that there was shipped to the United States from those islands in the ten months ending with October, 1901, 645,095,290 pounds of sugar, valued at $24,454,076. Add to this the amount shipped from Porto Rico, and our total importations of sugar during the ten months will aggregate the figures above named—four billion pounds, valued at 100 million dollars.

BRITISH AND AMERICAN MINERAL OUTPUT.

A British journal has compiled the output of certain metals in the United States, with the production in Great Britain during the same time.

The American return is as follows:

Products.	1900.	Values.
Pig iron, long tons.....	13,789,242	£54,155,000
Silver, troy ounces.....	59,610,543	16,056,348
Gold, troy ounces.....	3,837,215	16,525,475
Copper, pounds.....	606,117,166	20,519,608
Lead, short tons.....	270,824	4,908,685
Zinc, short tons.....	123,886	2,219,624
Quicksilver, flasks.....	28,317	271,371
Aluminium, pounds.....	5,200,000	357,500
Antimony, short tons.....	1,750	72,287
Nickel, pounds.....	9,715	809
Platinum, troy ounces.....	400	520
Total value of metallic products	....	£115,087,227

A similar return of British metals for the year 1900 is as follows:

Products.	1900.	Values.
Pig iron, tons.....	8,959,691	£37,622,549
Silver, ounces.....	190,850	22,465
Gold, ounces.....	14,004	42,925
Copper, tons.....	9,108	34,503
Lead, tons.....	34,364	418,960
Zinc, tons.....	9,066	188,573
Quicksilver	....	....
Aluminum, tons.....	560	72,800
Antimony	....	....
Nickel	....	....
Platinum	....	....
Tin, tons	4,268,620	587,869
Total value of metallic products	....	£38,990,644

Trade Report.

BRADSTREET'S ON IRON AND STEEL SITUATION.

The editor of Bradstreets telegraphs us this advance report of the iron and steel situation:

Iron and steel production is active beyond precedent for this season of the year, and further advances of 50 cents and $1 per ton are noted in charcoal pig, which is taking the place of other grades at Chicago as a result of scarcity due to insufficient transportation. Southern pig iron has been firmly put on a $12 basis for No. 2 at Birmingham, and foundry pig has been advanced 50 cents at Philadelphia and Pittsburg. The shut down of Chicago furnaces has caused an accumulation of coke sufficient to allow several to resume. The Pittsburg district iron and steel trade alone is said to be short 5,000 cars, and although a change for the better is reported there, double the present shipments could be made if there were cars enough. So full of orders are American rail mills that a contract for 105,000 tons for Mexico went to England this week, no Americaan bids being received. New business reported chiefly for the second half of the year is of good volume, and in addition some large sales of foreign iron are reported. Alone of finished products, wire and nails have been weak, but this exception has been partly remedied this week by the advance of 10 cents for nails, and less talk of outside competition is heard.

WIRE NAILS.

Wire nails in small lots, from stock, are quoted at $2.15 to $2.25, and carloads, at $2.10.

CUT NAILS.

Owing to the low price of wire nails, there is little or no demand for cut nails, which are quoted at $2.30 in small lots.

BARB WIRE.

Painted barb wire is quoted at $2.70 to $2.80, and $3 to $3.10 for galvanized, with 5 cents off for carload lots.

PLAIN WIRE.

Plain wire is quoted at $2.15 to $2.25 in small lots.

BARS.

The demand for bar iron remains strong, with prices very firm. The local interest is sold up for six months on steel bars, but Pittsburgh interests have booked a large tonnage. We quote iron and steel, 1.65c Chicago; out of store, 1.90c to 2c.

SHEETS.

There is an active demand for sheets, which jobbers are not able to supply adequately. We quote No. 27 black, 3.50c, and galvanized, 70 per cent to 70 and 5 per cent.

STRUCTURAL STEEL.

New business is plentiful, but the continued scarcity of cars is seriously interfering with the delivery of material in this territory. Heavy sections of beams can be secured in four to six weeks; light sections and angles, in three months; universal plates, six to eight weeks, and sheared plates in four weeks. We quote mill shipments, carload lots, as follows: Beams, 15 inches and under, 1.75c; over 6x6, 1.85c; plates, 1.75c, base; tees, 1.80c; zees, 1.75c; small lots from store, ½c to ¾c higher; beams and channels from store, ½c to ¾c per pound higher.

BILLETS.

The scarcity in the supply of billets continues, and Bessemer is quoted at $31 to $33; open hearth, $35 to $35.

MERCHANT STEEL.

New business is plentiful and consumers are specifying heavily on contracts. The mills are crowded with orders for several months ahead and can accept but little new business. Owing to the car famine, the mills are stil several months behind with deliveries. We quote mill shipments, Chicago delivery, as follows: Smooth finished tire steel, 1.85c to 2c; open-hearth spring steel, 2.25c to 2.50c; toe calk, 2.40c to 2.60c; sleigh shoe, 1.65c to 1.80c; cutter shoe, 2.40c to 2.60c; ordinary tool steel, 6c to 7c; specials, 13c and upwards; less than car load lots, 5 per cent to 10 per cent higher.

FURNACE FITTINGS.

The S. M. Howes Co., of Boston, announce a 30 per cent. discount from list price on furnace fittings.

CORDAGE.

Manila rope, on a basis of 7-16 inch and larger, remains unchanged at 12¾c to 13c per pound; sisal rope, on the same basis, is quoted at 8½c to 9¼c per pound; with a rebate of ¼c per pound allowed on both kinds of rope in large quantities.

BUILDING PAPERS.

There has been an average advance in tarred papers equivalent to about $2 a ton on single ply tarred roofing felt, and 5c a roll each on two and three ply tarred felt. For the eastern trade, single ply tarred felt is $28 per ton; two ply, 50c a roll, and three ply, 75c per roll, delivered. Rosin sized sheathing, deafening and slaters' felt and water proof papers remain practically unchanged.

LINSEED OIL.

City raw linseed oil is quoted at 57c per gallon in 5-barrel lots or more, and 58c per gallon in less than 5-barrel lots.

SPIRITS TURPENTINE.

Southerns, 39½c to 40c; machine made barrels, 40c to 40½c per gallon.

Quotations.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box.
IC	10x14	$7 50
IX	10x14	9 00
IC	12x12	9 00
IX	12x12	10 50
IC	14x20	7 50
IX	14x20	9 00
IXX	14x20	10 50
IXXX	14x20	12 00
IXXXX	14x20	13 50
IC	20x28	15 00
IX	20x28	18 00
IXX	20x28	21 00

COKE PLATES.

Cokes, 180 lbs	IC	20x28	10 50
Cokes, 200 lbs	IC	20x28	10 75
Cokes, 216 lbs	IC	20x28	11 00
Cokes, 216 lbs	IX	20x28	13 50

PIG IRON.

Lake Sup. Charcoal	$18 50@$19 00
Local Coke Fdy No. 1	16 00
Local Coke Fdy No. 2	15 50
Local Coke Fdy No. 3	15 00
Local Scotch Fdy No. 1	16 00
Local Scotch Fdy No. 2	15 50
Local Scotch Fdy No. 3	14 50@ 15 00
Southern Coke No. 1	15 90@ 16 65
Southern Coke No. 2	15 15@ 15 90
Southern Coke No. 3	14 65@ 15 40
Southern Coke No. 4	14 15@ 14 90
Southern No. 1 Soft	15 65@ 16 40
Southern No. 2 Soft	15 15@ 15 90
Southern Gray Forge	14 15@ 14 90
Southern Silveries	16 15@ 17 65
Jackson Co. Silveries	17 00@ 17 50
Ohio Strong Softeners	17 00@ 17 50
Alabama Car Wheel	20 50@ 21 00
Malleable Bessemer	16 50@ 17 00
Coke Bessemer	18 00@ 18 50

BEVELS.

Stanley's Rosewood Handled, T., new list 33⅓%

BLACK SHEET STEEL.

¼ in. 3-16 in. Nos. 8 and 10. per lb.	$3 80
No. 12 per lb.	3 85
No. 14 per lb.	3 90
No. 16 per lb.	3 40
No. 18-21 per lb.	3 50
No. 22-24 per lb.	3 60
No. 25-26 per lb.	3 70
No. 27 per lb.	3 80
No. 28 per lb.	3 90

SMOOTH STEEL.

		per lb.
Wood's Smooth Steel,	15-17	$4 00
" " "	18	4 10
" " "	20	4 20
" " "	22-24	4 30
" " "	25-26	4 40
" " "	27	4 50
" " "	28	4 60

PATENT PLANISHED SHEET STEL.

Patent Planished Sheet Steel. ..... "A" $10 20, "B" $9 20

GALVANIZED IRON.

Galvanized Iron ..... 70 to 70 & 2⅛%

SOLDER.

Extra 18½c

Commercial 17½c

SHEET ZINC

600 lb. Casks, base ..... 7c per lb.

COPPER.

Copper ..... base, 20c

TIN PIGS AND BARS.

Banca, pigs, per lb. ..... 28¼@28½c
straits pigs, per lb. ..... 28 @28¼c
straits in bars, per lb. ..... 28¾@29c

LEAD.

American Pig ..... 4.60@4.62½c
..... 5½@¼c

HARDWARE.

QUOTATIONS.

(The quotations given below represent the current hardware prices. They are not given as manufacturer's prices, and manufacturers should not be held responsible for them. Manufacturers sometimes name higher figures than those quoted for goods; they are not always selling at the price quoted, but goods are being sold at the figures printed below by manufacturers nd jobbers.)

ADZES—CARPENTERS'.

Hunt's	25%
White's	12½%
Coopers'—Barton's	12½%
White's	12½%
Ship—Barton's	12½%
White's	15%
Hunt's	25%

AMMUNITION

CAPS, PERCUSSION—per 1000—

F L Waterproof, 1-10s	50c
G D	40c
Eley's	52c

CARTRIDGES.

Peters Rim Fire Ctgs	50&3%
Peters Cent Fire, Pistol & Rifle	25&3%
Peters Cent Fire, Military and Sporting Ctgs	15&5%
Peters Blank Ctgs, except 22 and 32, an additional 10% from above discount.	
Peters Blank Ctgs. 22 cal	10&10%
Peters Blank Ctgs. 32 cal	10&10%
Peters B B Caps, Round ball	$1 18
Peters B B Caps, Conical ball	$1 90
U. M. C. Rim Fire Ctgs	50&3%
U.M.C. Cent. Fire, Pistol & Rifle	25&3%
Winchester Cent. Fire, Military and Sporting Ctgs	15&3%
U. M. C. Blank Ctgs. 22 & 32 cal	10%
U. M. C. Blank Ctgs. 38 cal	50-10-10%
U. M. C. B B Caps, Round Ball	$1 75..25&10%
U .MC. B B Caps, Con. Ball	$2 00 net
U. M. C. Rim Fire Shot Ctgs	50&15&3%
U. M. C. Cent. " " "	25&10&3%

PRIMERS.

Berdan Primers	$1 00
Peters Primers	1 10
U. M. C. Primers	1 08
Winchester Primers	1 08

SHELLS.

Peters Empty Paper Shells, 10 and 12 gauge. League	25&5%
Peters Empty Paper Shells, 16 gauge. League	20&5%
Peters New Victor Nitro shells	15%
Ideal	33⅓&10%
Peters Loaded Shells. League and Semi-Smokeless	40&5%
Peters New Victor Loaded Shells, with King's Smokeless	40&10&10%
Ideals Loaded with Kings Smokeless	40&10&10&5%
U. M. C. New Club, 16 guage	20&10%
U. M. C. New Club 10 & 12 gauge	33⅓&5%
U. M. C. New Club	33⅓&5%
U. M. C. Nitro	1 ¢
U. M. C. High Base	lb
U. M. C. Trap	33⅓&10&7%
Winchester Blue Rivals / Winchester Yellow Rivals	20%
Winchester Repeater	18%
Winchester Leader	33⅓&10&7%
U. M. C. Loaded Shells. Black Powder / Winchester Loaded Shells, Black Powder	40&5%
U. M. C. / Winchester — Smokeless	40&10&10&5%

GUN WADS—per 1000.

Peters Gun Wads	20&5%
U. M. C. Gun Wads	20&5%

POWDER.

King's Quickshot Powder; Kegs $4 00; ½ kegs $2 25; ¼ kegs $1 25.	
King's Semi-Smokeless	20&5%
King's Smokeless	25, 20 & 10
Austin Quickshot Powder, Kegs $4 00; ½ kegs $2 25; ¼ kegs $1 25.	
Dupont Smokeless, Sporting	25, 20 & 10c.

SHOT

Drop shot, sizes smaller than B, 25-lb bags, per bag	$1 45
Drop shot, B and larger sizes, 25-lb bags, per bag	1 70
Buck Shot, 25-lb bags, per bag	1 70
Chilled Shot, 25-lb bags, per bag	1 70

ANVILS.

Hay-Budden, 70 to 84 lbs	10c per lb
Hay-Budden, 85 to 150 lbs	9c per lb

AUGERS AND BITS.

Snell's Boring Mach. Augers	60&10&5%
Snell's Car Bits, 12-inch twist	40%
Jennings' Pattern Auger Bits	50&10%
Russell Jennings' Augers and Bits	25&10%
Ship Augers, L'Hommedieu Bits	15%
Irwin	50%
Climax Bits	60&10%

AWLS.

Brad, handled per doz.	$ 35
Brad, shouldered, assorted 1 to 4 per gr.	2 00
Brad, shouldered, assorted 1 to 6 per gr.	2 50
Peg, Pat. per gr.	60
Peg, shouldered per gr.	1 00
No. 1, Scratch, handled per gr.	4 80
No. 5, Scratch, socket per doz.	6 00

AXES.

Lippincott	per doz	6 50
Mann	"	6 50
Second quality	"	6 00
Beveled axes, add	"	50
Broad—		
Peerless can patt	"	28 50
Hunt's	"	30
White's	"	12%
Hand—		
Hunt's	"	40
White's	"	12%
Ship—		
White's	"	12%

AXLES.

Common iron, long arm, sq. bed	5¼
Concord iron. long arm, sq. bed	6¼
Concord express, long arm, steel, square bed	6¾
Coach shape on above, ex. per. lb.	⅛
Short arms on above, extra per lb.	2
Welded axles on above, ex. per. lb	1¼
Half Patent, steel, Nos. 7 to 14	70
Half Patent, steel, Nos. 19 to 22	70
Extra, coach shape, 1¼ & smaller per set	15
Extra, coach shape, 1½, per. set	30
Extra, coach shape, 1'g'r, per. set	$1 00
National Wrought Steel Tubular, Self-Oiling—	
Standard Farm (1 to 5) and Special Farm (A1 to A5) less than ten sets	20%
Over ten sets	25

BEAMS—SCALE.

Scale Beams, List Jan. 12, 82	35%
Frary's	40%
P. S. & W.	30%

BELLOWS.

Blacksmiths	70%
Hand, 6½ in. per doz.	$4 50
Molders', 10 in. per doz.	9 00

BELLS.

COW.

Ordinary Goods	70&10%
Hig Grade	60&10%
Jersey	75&10%
Texas Star	50&10%

DOOR.

Abbe's Gong	45%
Barton Gong	55%
Home, R. & E. Mfg. Co.'s	55&10%
er and Pull, Sargent's	20&10&10%

HAND.

Hand Bells, Polished	60@60&10%
White Metal	55@55&10%
Nickel Plated	50@50&10%
Swiss	60%
Silver Chime	33⅓@33⅓&10%

MISCELLANEOUS.

Farm Bells	lb. 2¾ to 2½c
Steel Alloys, Church and School	50&10&50@60%
Wilmot & Hobbs Mfg. Co Gong	70%

BLOCKS.

Common Wooden	70%
Eddy Steel Tackle Blocks	66 2-3&5%

BOLTS.

CARRIAGE, MACHINE, ETC.

Common, list Jan. 30, 95	65%
Norway Iron, $3.00, list Oct. 7, '84	75&10%
Bolt Ends, list Jan. 30, '95	50&10%
Machine, list Sept. 20, '99	65&10%

DOOR AND SHUTTER.

Ives' Patent Door	60%
Wrought Barrel, Standard list	70&10%
Wrought Flush	40&10%
Wrought Square, Standard list	65%

STOVE AND PLOW.

Plow	40&10%
Stove, list December 25, 1899	70to75%

TIRE

Common, list Dec. 28, '99	70&10%
Eagle Philadelphia	72½%
Norway	75%

BORING MACHINES.

Jenning upright without Augers ..$2 00

BOXWOOD RULES.

No. 4	$11 00	per doz
" 12	16 00	" "
" 18	6 00	" "
" 26	11 00	" "
" 27	13 00	" "
" 29	4 50	" "
" 65	10 00	" "
" 66½	10 00	" "
" 67	6 00	" "

Boxwood, new list	60&10%
Ivory	40&10%
Lufkin's Steel	50&10%

BRACES.

Barber's	50&10%
Common Ball, American	$1 50
Fray's Genuine Spofford's	60%
Fray's No. 307 to 322	40&5%
Fray's No. 506 to 522	50%

BRACKETS.

Cast Iron Plain	50&10
Wrought Steel	70&10 @ 75%
Bradley's	75 @ 75&10%

BROILERS.

Wire Goods Co ..... 70&5%

BUTTS.

Bright Butts, Nos. 800, 802, 804, 806, 808, 810, 814, 816, 818, 820, 854	70%
Bright Butts, Nos. 826, 828, 829, 830, 832, 834, 836, 838, 840, 843, 843, 844, 845, 846, 848	70%
Bright Butts, Nos. 822, 822½, 823, 823½	70%
Japanned Butts, Nos. 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 726, 727, 728, 729, 730, 731	70%

CAGES—BIRD.

Enameled	40%
Brass 1200 series	33⅓%

CASTERS.

Bed	60&10
Plate Casters	60&10
Martin's Patent (Phoenix)	50

CHAIN.

American Coil Chain, Less than Cask lots:

3-16	¼	5-16	⅜	7-16	½	9-16
8.40	6 30	5.25	4.35	4.20	4.10	
⅝	¾	⅞ to 1				
4.05	4.00	4.00c. per lb.				

Less than Cask lots add 25c.

German Coil, list July 24, '97	60&10&10%
German Halter Chain, list July 24 '98	60&10&10%

Traces, Western Standard: 100 pair

6½—6-3, Straight, with Ring	29.00
6½—6-2, Straight, with Ring	30.00
6½—8-2, Straight, with ring	34.00
6½—10-2, Straight, with ring	37.50

Add 2c per pair for Hooks.
Twist Traces 2c. per pair higher than Straight Link.

Trace, Wagon and Fancy Chains

Eastern list	50&10%
Jack Chain, lis July 10 '98:	
Iron	60@60&
Brass	60@60&

Safety Chain.....70%
Gal. Pump Chain.....lb. 4¼@4½c
Covert Sad. Works:
Breast, Hitching and Rein Chains.....70%
Covert Mfg. Co.:
Breast.....35&2%
Halter.....35&2%
Heel.....35&2%
Rein.....35&2%
Stallion.....35&2%
Oneida Community:
Eureka Coil & Halter40&10% new list
Niagara Coil and Halters40@10% "
Niagara Cow Ties..45&5@45&10&5%
Am. Coil and Halters..50&10&5@60%
Am. Cow Ties.....35&5@40&5%
Wire Goods Co.:
Dog Chain.....60&10%
Universal Dbl-Jointed Chain....50%

CHALK.

Blue.....per gross 60c
Red..... " 50c
White..... " 45c

CHALK LINES.

Chalk lines.....per doz. $2 50

CHISELS.

Mix..... } 70%
Witherby..... }

CLAMPS.

No. 25 Adjustable.....50&10 to 66%
Carriage Makers.....60%

CLEANERS.

Pot .....per doz $1.10

CLEAVERS.

Beatty's .....dis 40
White's .....dis 15

CLIPPERS.

E. H. Hotchkiss Horse Clippers
No. 10.....per doz $18 00
No. 30..... " 15 60
No. 22..... " 13 80
No. 20..... " 13 20
No. 8..... " 10 80
H. Hotchkiss Toilet Clippers
No. 1.....per doz 9 60
No. 101..... " 10 80
No. 201..... " 10 80
No. 300..... " 13 20
No. 500..... " 15 00

COFFEE MILLS.

Enter. Mfg. Co., list Jan. 17, '93....25%
Parker's.....50&10%
Arcade.....60&10%

CORKSCREWS.

Howes .....25&12%
Humason & Beckley.....40&10%
Empire 40%
Walker's .....net
Williamson's Regular.....40%
Williamson's Forged Worm...40%

DOG COLLARS.

Pope & Stevens' List:
Brass (full Assortment).....net price

DOOR CHECKS.

Blount.....30%
Eclipse.....30%
Corbin.....30%

DRILLS AND DRILL STOCK.

ommon Blacksmith's Drill ..... $1 50@$1 60
Bench Drills, Stearns'.....5 50& 6 00
Blacksmith's Self-feeding, each, ...$5 00&$7 00
Breast, Millers Falls..... .....each, $2.25 net for No. 12
Godeil Automatic Drills.$12 00to$15 00

DRILLS—BIT STOCK.

Standard List.....60&10@70%

DRILLS—TWIST.

Standard List.....60&10@65%
Straightened taper shanks to 1/3 in.

EGG BEATERS.

Standard Co.:
No. 5 Steel Handle Dover per gross.....$ 6 50
No. 10 Cast Handle Dover pr gr 8 00
No. 10 Steel H'ndle Dov'r pr gr 8 00
No. 15 Extra Heavy Steel Handle per gr..... 15 00
Rival per gr..... 10 00
Taplin Mfg Co.:
No. 50 Small Family size pr gr 6 50
No. 100 Regular Fam size pr gr 8 00
No. 102 Regular Family size tinned pr gr..... 9 50
No. 150 Large Fam size pr gr.. 15 00
No. 152 Large Family size tinned pr gr..... 17 00
Lyon's Standard size per doz.. 1 75
Wonder (S. S. & Co.) per gr.... 7 50

ENAMELED STEEL WARE.

Royal (N. E. & S. Co.)....70 to 70&10%
Peerless (L. & G. Mfg. Co.)...70&10%
Agate Nickel Steel Ware.....50&20%
Pearl Agate Ware.....50&20%
Blue and White Ware.....60&10%
All White Ware (with blue border.....50&10&5%
Regal Steel Ware.....60&10%

FASTENERS, BLIND.

Zimmerman's.....50&10%

FAUCETS.

Standard Metal Key.....25%
B. & L. B. Co.
Redlich's Wood Faucets.
Red Cedar..... } Net Prices.
Oak..... }
Cherry..... }
Cork Lined..... }
Metal Key..... }
Self Measuring:
Enterprise, per doz. $36 00.....40%
Cork Lined.....70&5@70&10&5%
Metallic Key, Leather Lined .....70@70&10%
Red Cedar.....50@50&5%
B. & L. B. Co.:
West's Lock, Open and Shut Key.....50&10%
John Sommer's Peerless Tin Key..40%
" " Boss Tin Key.....50%
" " Victor Metal Key..50&10%
" " Duplex Metal Key....60%
" " Diamond Lock.....40%
" " I X L Cork Lined....50%
" " Reliable " " ..50&10%
" " Common " " 70%
" " Chicago " " 60%
" " O K " " 50%
" " Perfection Cedar.....40%
Star.....60@60&5%
Star, Metal Plug new list...40@40&5%
Lockport, Metal Plug, reduced list.....60&5%
McKenna, Brass:
Burglar Proof, N. P.....35%
Improved, ¾ and ⅞ inch.....35%
Self Measuring:
Enterprise, per doz $36.00.....40%
Lane's, per doz. $36.00.....40&10%
National Measuring, per doz. $36.00.....40%

FILES AND RASPS.

Great Western.....75&5%
J. B. Smith.....75&5%
Arcade.....75&5%
K. & F.....75&5%
American.....75&5%
McClellan.....75&5%
Eagle.....70, 10&5%
Nicholson.....70&10%
Royal.....80@80&10%
Black Diamond.....70&10%
Disston's.....75& 5%

FILE HANDLES.

Nicholson File Co.'s "Simplicity" File Handles, per gross .....$.85 to $1.50

FORKS AND HOES.

Coke and Cottonseed Forks....40&5%
Coal Forks.....40&10%
Barn or Ice Forks.....40&5%
Beet Forks.....30&10
Ballast or Stone Forks.....40&5%
Tanners' Forks.....40&5%
Shaving Forks.....40&5%
Potato Scoop Forks.....40%
Oyster Forks.....40&5%
Sluice Forks.....40&5%
Heavy Mill, Manure or Street Forks.....70%
Steel Tar or Asphalt Rakes.....65%
Asphalt Hoes.....65%
Two Tine Hay Forks, Std. Size...65%
3 Tine Hay Forks, Std. Size.....70&5%
Four Tine Hay Fork, Std. Size. 66⅔%
Socket Four Tine Hay Forks..66⅔&5%
Socket Four Tine Manure Forks...70%
Socket Four Tine Spading Forks .....70&5&5&2½%
Three Tine Hay Header and Baler Forks.....67½&2½%
Four Tine Hay Header and Baler Forks.....66⅔%
Grain or Barley Forks.....70&10&10%
Four Tine Manure Forks...70&10&5%
Five & Six Tine Manure Forks70,10&5%
Spading Forks.....70&10&5%
Potato Digging Forks.....65%
Stone Picking Forks.....65%
Garden Hoes.....75&10&5%
Meadow and R. I. Hoes...75&5&2½%
Sunbeam Meadow Hoes.....75&5&½%
Mortar and Street Hoes....75&10&5%
Planter Hoes, Regular Pattern.70&30%
Tobacco Hoes.....75&20%
Cotton Hoes.....70&10&10&5&2%
Rough Fin. Shank Cot. Hoes 75&12½%
Cotton Chopper Hoes....75&10&7½%
Ladies' Cotton Hoes.....75&10&7½%
Malleable Rakes.....75%
Toy Ladies' and Boys' Hoes.....70&10to70&10&5%
Weeding Hoes and Rakes.....75&5%
Potato Hooks.....70&5%
Hop Hooks.....60&10&2½%
Steel Garden Rakes.....75%
Steel Garden Rakes Stamped blank 70%
Turf Edgers.....60&5%
Steel Road Rakes.....65%
Special Mortar Hoes.....40&10&2½%
Harpers' No. 7 Mortar Hoes.....65%
Truck Hoes.....50&10&2%
Hoes.....65%
Special Hoes.....75&10&2%
Hoe Down Hooks.....75&10&2%
Warren Hoes.....60&5%
Laid Steel Edge Hoes.....25, 5&2%

GAUGES.

Marking, Mortise, etc.....60%
Stanley R. & L. Co.'s Butt & Rabbet Gauge.....Net
S. & H. Cos.....75%

GIMLETS.

Gimlets.....60%

GLASS CUTTERS

Woodward.....33⅓&10%
Red Devil.....33⅓&10%
Bonney V. & T. Co.....40&10%

GLUE POTS.

Tinned.....30%
Enameled.....35%

GLUE.

Martin's Liquid, List....33⅓% off List
Martin's Liquid, List....33⅓% off List
Martin's Liquid, List....33⅓% off List

GREASE, AXLE.

Fraser's.....Ne
Baum's Castorine.....Net

GRINDSTONE FIXTURES.

Stowell's..... Net
Reading Hardware Co.....Net

HAMMERS.

"Artisan's Choice," A. E. Nail..40&5%
Engineer's and B. S. Hand.....60%
Machinist's Hammers..50&10&5%to60%
Bell Face, A. E. Nail.....40&12½%
S. & H. Cos. No. 20 ....per gross. 5 25

HANDLES—IRON, WROUGHT OR CAST—DOOR OR THUMB.

No. 0.....per doz $0 90 } Dis
No. 1..... " 1 00 }
No. 2..... " 1 18 }
No. 3..... " 1 35 }
No. 4..... " 1 50 } 25
Bronze iron drop lat., per doz net $1 10
Japanned store door.....net 1 10
Barn door No. 5..... " 1 35
Chest and lift.....dis 50
Wood—
Saw and plane..... " 45
Hammer, hatchet, axe, etc.... " 45
Brad awl.....per gro. 45
Hickory firmer chisel..... }
Apple firmer chisel..... }
Socket firmer chisel..... } .25
Socket framing chisel,..... }
File.....per gro. $2 80
Auger, assorted..... 5 00
Hoe, rake, shovel, etc..... 50
Cross Cut Saw—
Atkins' No. 1.....per pair 28
" No. 3..... " 18
" No. 6..... " 12
Triumph..... " 12
Common loop..... " 10

HANGERS.

Chicago Spring Butt Co.:
Friction.....25%
Oscillating.....25%
Big Twin.....25%
Cronk Hanger Co.:
Loose Axle.....60%
Roller Bearing.....60&10%
Lane Bros.:
Parlor, Ball Bearing $4.00
Parlor, Standard 3.25
Parlor, New Model 2.75
Parlor, New Champion..... 2.40
Barn Door, Standard .....60&10%
Covered .....50&10&10&5%
Special .....60&10%
Lawrence Bros.:
Advance.....60%
Cleveland .....60&10%
Crown.....60%
New York.....60%
Peerless .....60&10%
Sterling 60%
McKinney Mfg. Co.:
No. 2, Standard, $18.....60&10%
No. 1, Special, $13.....60&10%
Stowell Mfg. and Foundry Co.:
Acme Parlor Ball Bearing 40%
Atlas.....50&10%
Badger Barn Door.....50%
Baggage Car Door.....50%
Climax Anti-Friction.....50%
Elevator 40%
Express.....50%
Interstate .....50&10%
Lundy Parlor Door.....50%
Matchless.....50&10%
Nansen.....60&10%
Stowell Parlor Door 50%
Railroad 50%
Street Car Door.....50%
Steel, Nos. 300, 404, 500.....40&15%
Wild West.....50%
Zenith for Wood Track 50%
Taylor & Boggis Foundry Co.:
Kidder's .....50@50&10%
Wilcox Mfg. Co:
Bike Roller Bearing .....60&10%
C. J. Roller Bearing.....60&10%
Cycle Ball Bearing.....50%
Dwarf Ball Bearing.....40%
Ives, Wood Track.....60&10%
L. T. Roller Bearing.....60&10&5%
New Era Roller Bearing .....50&10%
O. K. Roller Bearing.....60&10&5%
Prindle, Wood Track 60%
Richards' Wood Track 60%
Richards' Steel Track .....50&10%
Spencer Roller Bearing.....60&10%
Tandems, Nos. 1 and 2.....60%
Underwriters' Roller Bearing....40%
Wilcox Auditorium Ball Bearing 20%
Wilcox Barn Trolley No. 123 ....40%
Wilcox Fire Trolley, Roller Bearing 30%
Wilcox Le Roy Noiseless Ball Bearing 40%
Wilcox New Century ....50&10&10%
Wilcox Trolley Ball Bearing.....40%

HATCHETS.

American Axe and Tool Co..... }
Blood's..... }
Hunt's..... }
Hurd's..... } 40&10%to40&10 &5%
Mann's..... }
Underhill's..... }
C. Hammond & Son.. }
Fayette R. Plumb.... }

HAY AND STRAW KNIVES.

Lightning.....$5 50

HINGES.

BLIND AND SHUTTER.

Surface Gravity Locking Blind: (Victor; National; 1868 O.P.; Niagara; Clark's O. P.; Clark's Tip; Buffalo.)
No.....1 3 5
Doz pair.....$0.75 1.45 2.90
Mortise Shutter:
(L. & P., O. S., Dixie, &c.)
No.....1 1½ 2 2½
Doz. pair.....$0.60 55 52 45
Mortise Reversible Shutter, (Buffalo, &c.)
No.....1 1½ 2
Doz. pair.....$0.65 .60 .55
Parker.....70@75%
North's Automatic Blind Fixtures, No 2, for Wood $9.00; No. 3, for Brick $11.50.....10%
Reading's Gravity.....75&10%
Sargent's, No. 1, 3, 5.....66⅔&10%
Sargent's, Nos. 11 & 13.....70&10%
Wrightsvile H'dware Co.:
O. S., Lull & Porter.....80&2½%
Acme, Lull & Porter.....75&10%
Queen City Reversible.....75&10%
Stenger's Positive Locking, Nos 1 & 3.....70&10&5%
Shepard's Noiseless, Nos. 00, 65, 55 .....79&10%
Niagara, Gravity Locking, Nos. 1, 3 & 5.....75&7½%
1868, Old Pat'n. Nos. 1, 3 & 5 75&7½%
Tip Pat'n, Nos. 1, 3 & 5.....75&7½%
Buff. Gravity Lock., 1, 3, 5..75&7½%
Shepard's Double Locking, Nos. 20 & 25.....70&10%
Champion Gravity Locking, No 75 .....75&7½%
Steamboat Gravity Locking, No 10 .....5&7½%
Pioneer, Nos 060, 45 & 5½..75&7½%
Empire, Nos 101 & 103.....70&7½%
W. H. Co's Mortise Gravity Locking No. 2.....60&10%
Stanley's Steel Gravity Blind Hinges, per doz. sets $1.80.....30&10%

GATE.

Clark's or Shepard's—Doz. sets:
No.....1 2
Hinges with Latches$1.90 2.50

Hinges only..... 1.30 1.90 2.90
Latches only..... 65 65 95
New England:
With Latch.....doz....@$1.55
Without Latch.....doz....@$1.25
Reversible Self-Closing:
With Latch.....doz....@$1.80
Without Latch.....doz ...@$1.45
Western:
With Latch.....doz. $1.40@1.75
Without Latch.....doz. $0.95@1.30
Wrightsville H'dware Co.:
Shepard's or Clark's Nos. 1 & 2.... 65&2½%
Shepard's or Clark's, No. 3....55&5%

SPRING

Heldback, Cast Iron, gros. $8.00@8.25
Non-Holdback, Cast Iron.... ... gro. $6.75@7.25
Extra 10% often given on most of these hinges.
J. Bardsley:
Bardsley's Patent Checking.....15%
Bommer Bros.:
Bommer Spring Hinges 40%
Bommer Ball Bear. Floor Hinges.40%
Chicago Spring Butt Co.:
Chicago.....20%
Floor Hinge.....40%
Garden City Engine House.....20%
Keene's Saloon Door 20%
Triple End.....40c
Hoffman Hinge & Foundry Co.:
No. 70 & 80 Holdback Detachable $9.00
Lawson Mfg. Co.:
Matchless.....30%
Matches Pivot.....35%
Payson Mfg. Co.:
Oblique.....50&10%
Stover Mfg. Co.:
Ideal, No. 16, Detachable, per gr. $12.50
Ideal, No. 4.....per gr. $9.00
New Idea No. 1.....per gr. $9.00
New Idea, Double Acting.....45%

WROUGHT IRON

Strapand T Hinges, list Mar. 15, 1901:
Light Strap Hinges.....75%
Heavy Strap Hinges.....80%
Light T Hinges.....70%
Heavy T Hinges.....66⅔%
Extra Heavy Hinges.....75&10%
Hinge Hasps..... .....60%
Cor. Heavy Strap.....80%
Cor. Ex. Heavy T.....75&10%
Screw Hook and Strap:
6 to 12 in.....lb. 3¼c
14 to 20 in.....lb. 3¼c
22 to 36 in.....lb. 3 c
Screw Hook and Eye:
¾ to 1 inch.....lb. 5c
⅝-inch.....lb. 6c
½-inch.....lb. 7c

MISCELLANEOUS—

Hoffman's Steel Spring Butt Hinges 40&10%
Hoffman's Offset Refrigerator Hinges 40&10%

HOLLOWWARE.

Stove Hollowware Ground.....50%
Maslin Kettles.....70&10%

HOOKS.

Picture, No. 299 ....&28c

BUSH HOOK.

No. 1, Underhill $9 00
Bird cage 40%
Clothes line .....60&10&10%
Grapling..... .....50%
Ceiling.....60&5%
Coat and Hat ..... 60&5%
Harness .....60&10&10%

WROUGHT IRON.

Cotton, V. & B.....25%
Tassel and picture.....50%
Wire, Coat and Hat, Gem.....net
Indestructible..... .....45%
Brass .....net $2 00%
Hooks and eyes, bright wire....80&10%
Brass.....60&10&5
Fish hooks, American.....50%

HOSE—RUBBER.

Competition.....dis 70&10%
Standard 70%
Extra 60%
N. Y. Rubber Co.'s st'd.....50&10%
Banner.....60%
Extra..... 50%

IRONS—SAD AND POLISHING.

Mrs. Potts' No. 50.....70c
Mrs. Potts' No. 55.....70c
Mrs. Potts' No. 60.....90c
Mrs. Potts' No. 65..... 85c

KNIVES.

Standard List.....70&5%
Adjustable Handle.....25@33⅓%
Watrous.....30&10@40%
Cantelo's Folding.....25%
Improved Crown.....20%

KNOBS.

Base, 2½in. Birch Rubber tip ℔ gro.....$1 40
Door, Mineral.....℔ doz. 65c
Door, Por. Jap'd.....℔ doz. 75c

LADLES.

Reading.....Net
Sargent's.....Net

LANTERNS—TUBULAR.

No. 0 Berger's "Bail Lift," per doz. $9 50.....40&10%
No. 0, Berger's "Bail Lift," Galvanized, per doz. $10 50...40&10%
No. 2 Berger's "Bail Lift," per doz. $13 00.....40&10%
No. 2 Berger's "Cold Blast," per doz. $16 00.....40&10%
No. 0 Berger's Dash Board, Japanned, Plain Globe, per doz. $13 00.....40&10%
No. 0, Berger's Dash Board, Japanned, Bull's Eye, per doz. $13 50.....40&10%
No. 2, Berger's Dash Board, Japanned, Plain Globe, per doz. $17 00.....40&10%
No. 2, Berger's Dash Board, Japanned, Bull's Eye, per doz. $17 50.....40&10%

BULL'S EYE POLICE.

2¾-in. flash light, per doz. $3 50@$3 75
3-in. flash light, per doz....4 00@ 4 25
4¾-in. regular, per doz.....3 50
3-in. regular, per doz.....3 57

LEMON SQUEEZERS.

Wood, Common, per gr., No. 0 $5 00; No. 1 $6 50; No. 2 $10 00.

Wood, Porcelain lined, No. 1.....per doz. $3 00@$3 50
Tinned Iron.....per doz. 1 25
Iron, Porcelain Lined, per doz.....3 25@ 3 50
Jenning's Star...per doz. 1 85@ 1 90
King.....per doz.

LOCKS.

Plate 33⅓%
Slaymaker-Barry Co.....30&25%
Sargent & Co.....40, 40&10%
Yale flat key.....net
L. & C, round key.....30&10%
Reading Harding Co.....40%
L. & C. flat key latches .....33&10%
Stearns' sliding door....net $15 00

CABINET.

Eagle.....33⅓%
Yale.....33⅓%
Eagle and Corbin trunk.....25%

PADLOCKS.

Wilcock's..... 70%
M. W. & Co..... 70%
Russell & Irwin 70%
Slaymaker Barry Co..... 40%
Bohannon's brass..... 30%
Yale.....net
Eagle 33⅓%
Eureka, Eagle Lock Co 40%
Corbin.....33⅓&10%

MALLETS.

Fiber Head Sterns.....30&10%
Hickory.....40%
Lignumvitæ.....40&40&10%
Tinners'. Hickory and Applewood, per doz. .....75c@$1 50

MATTOCKS.

Regular list.....65&5%

MOWERS, LAWN.

Cheap.....all sizes.....2 25
Good.....all sizes, $2 50@$2 75
10 12 14 16-in
High Grade....4.25 4.50 4.75 5.00
Pennsylvania and Continental .....Net price
Genuine Philadelphia Mowers:
Styles M. S., C., K., T., N....70&10%
Style A, (all steel).....60&10%
Style E, Low Wheel.....60&10%
Style E., High Wheel.....70&10&5%
Drexel .....Net prices
Gold Coins.....Net prices
Dewey's.....Net prices
All Day .....Net prices
XX, 12-in. wheel.....60%
Clippers.....50&10&10%

NAIL SETS.

Octagon..... per gross, $8 00@$9 00
Round..... per gross, 8 00@ 9 00
Cannon's Diamond Point, per gross .....$9 00 Net

NUT CRACKERS.

Sargent's No. 12.....$1 50

OILERS.

Tin or Steel.....50%
Zinc..... .....50&10%
Malleable Hammers 35%
Malleable Hammers, old pat., same list .....Net

PADLOCKS.

Sargent Dog Collar 70%
Sargent Wrought Steel and Brass..80%

PINCHERS.

Carpenters', wrt. iron, pol. steel jaws..... 25
Blacksmiths',..... 40
P. S. & W..... 25

PIPE.

WROUGHT.

List February, 1898.
1¼ and under, plain.....50&2½
1½ and under, gal.....50&2½
1½ and over, plain.....50&2½
1½ and over, gal..... 50&2½
Boiler tubes..... 50&2½

PLANES.

Stanley Planes, new list.....20@25%
Standard Bailey Planes.....20@25%

PLIERS AND NIPPERS.

Swedish Side Cutting Pliers 40%
" End " " 40%
" Diagonal " " 40%
Halls Compound Nippers.....40%
U. D. F. & T. Co., all kinds.....Net

PLUMBS AND LEVELS.

Common.....75%
Stanley's Wooden, new list, ...40%
Disston's.....70%

POCKET LEVELS.

Stanley's Common, new list.....40%

POACHERS.

Buffalo Steam Egg No. 1, per doz. $7 20. 50%

POLISH.

POLISH—METAL.

U. S. Metal Polish Paste, 3 oz. boxes, per dozen, 50c; per gr. $4.50; ½lb boxes, per doz. $1.25; 1 lb boxes, per doz.....$ 2 25
U. S. Liquid, 8 oz. cans, per doz. $1.25; per gr..... 12 00
Barkeepers' Friend Metal Polish, per doz, $1.75, per gr..... 18 00
Universal Paste, 3 oz. boxes.....60%
Burnishine Liquid 5 lb..... 16 00

POLISH—STOVE.

Dixon's .....per gross, $5 75
Dixon's Plumbago.....per lb 6½c

POPPERS, CORN.

Round or Square, 1 qt.....per doz., 65
Square, 1½ qt.....per doz., $1 00
Square, 2 qt.....per doz., 1 00

POST HOLE AUGERS AND DIGGERS.

Iwan's Patent Post Hole Auger....40%
Eureka Perfection Post Hole Digger, per doz.....$10 00
Atlas, per doz..... .... 7 50

POWDER.

IN CANISTERS.

Duck, 1 lb each.....45c
Fine Sporting, 1 lb each.....75c
Rifle, 1 lb each..... ....$1 00

IN KEGS.

Duck, 6½ lb kegs.....$2 50
Rifle, 6½ lb kegs..... ..... 1 25
Rifle, 12½ lb kegs..... 2 25
Rifle, 25 lb kegs 4 00

PRESSES—FRUIT AND JELLY

Enterprise Manufacturing Co.....25%

PULLEYS.

Hay Fork, Svl, Sd Eye, doz $1 75@$2 75
Hot House, Awning, etc.....50%
Japanned Clothes Line.....50%
Japanned Screw.....50&10%
Japanned Side..... .....50&10%
Sash (Auger Mortise):
Common Sense, 1¾ in ..per doz. 19c
Common Sense, 2 in ....per doz. 20c
Empire.... ....17c.; 2 in., 22c

SASH PULLEYS.

Fox No. 3 or No. 7, 2½ wheel, ...25c per doz
Fox No. 9, 1¾ wheel.....20c per doz
Extra for plated Finish.... 25c per doz
Extra for Anti-Friction Bronze Bushing.....10c per doz

RAZORS.

Fox Razors No. 42....per doz. $20
" " " 44.... " " 24 00
" " " 82..Platina " 24 00
Discount 40%
Rantankarus..... "

REGISTERS.

List Sept. 1, 1901.

Black Japanned Registers, Ventilators, Faces and Borders, ...70%
White Japanned Registers, Ventilators and Faces.....70%
Bronzed Finishes in Imitation of Gold, Silver, Copper or Bronze .....40&10%
Nickelplated .....50&10%
Electro-Plated in Brass, Bronze, Copper or Oxidized Silver 40&10%
White Porcelain.....40&10%
Solid Brass and Bronze Metal .....40&10%

All on new list.

RIVETS AND BURRS.

Coppered Iron Rivets.....60&5%
Tinners Rivets.....60&5%

ROOFING SUPPLIES.

EAVE TROUGH.

"Perfection" Galvanized Eave Trough.....75&10%&10%
"Eclipse" Galvanized Eave Trough.....75&10%&10%
Double Bead Galvanized Slip Joint Eave Trough.....75&10%&10%
Double Bead Galvanized Lap Joint Eave Trough.....75&10%&10%

GUTTERS.

Roof Gutters, Galvanized. 75&10%&10%

PIPE.

Plain Round Pipe, Galvanized, Nested.....70-5-10%
Plain Round Pipe, Galvanized, Unnested.....70-2½-10-%

VALLEYS.

Valleys, in Rolls, IC and IX Terne. 70%
Valleys, in Sheets, IC and IX Terne.....70%

HOOKS.

Flashing Hooks.....10%
Wrought Conductor Hooks.....60%

CUT-OFFS.

Kuehn's Galv.....50%
Acme Galv..... .....10&10%
Acme Tin.....60&10%
Centennial Tin, new list.....50%

EAVE TROUGH HANGERS.

Eave Trough Hangers, Single and Double Bead, Imperial.....15%
Eave Trough Hangers, Single and Double Bead, Wire.....20%

ELBOWS.

One Piece Conductor Elbows, Galvanized, Corrugated..... 60%
Adjustable Elbows, Tin. 50%

PREPARED ROOFINGS.

Imperial 2-ply Tarred Roofing complete.....$1 75 per sq.
Imperial 3-ply Tarred Roofing, complete.....$2 00 per sq.

ROPE.

Per lb
Manilla, 7-16 inch diameter and larger..... 9½@10c "
Manila, ⅜ in.....9¼@9½c "
Manila, ¼ and 5-16 in..... 10½@10¾c "
Sisal, 7-16 in. and larger 7@7¼c "
Sisal ⅜ inch .....8@8¼c "
Sisal, ¼ and 5-16 in.....8@8¼c "
Sisal, Medium Lath Yarn ... 9@9¼c "

SASH CORD.

Braided, Drab.....lb 25c
Braided, White, common.....lb 19c
Cable Laid Italian ....lb, A 18c, B 16c
Common India.....lb 9c@9½c
Cotton Sash Cord, twisted....12@16c
Patent Russia.....lb 12½@13c
Cable Laid Russia.....lb 13½@14c
India Hemp, braided.....lb 14@15c
India Hemp, twisted.....lb 10@12c
Patent India, twisted.....lb 10@12c
Pearl Braided, cotton.....lb 17@18c
Massachusetts, white.....lb 22½c
Massachusetts, drab.....lb 20½c
Eddystone Braided, cotton....lb 19c
Harmony Cable Laid Italian....lb 18c
Ossawan Mills:
Crown, Solid Braided, white ..lb 18c
Braided, Giant, white.....lb 17c
Peerless:
Cable Laid Italian.....18c
Cable Laid Russian.....14c
Cable Laid India.....12c
Braided India.....18c
Phœnix, white.....19c
Samson:
Braided, Drab Cotton.....lb 32½c
Braided Italian Hemp.....lb 32½c
Braided, Linen.....lb 49c
Braided, White Cotton, Spot.lb.28½c
Silver Lake:
A quality, Drab, 40c.....15%
A quality, White, 35c.....15%
B quality, Drab, 35c.....15%
B quality, White, 30c.....15%
Italian Hemp, 40c.....15%
Linen, 37½c.....15%

SASH LOCKS.

Ives, Patent.....60@60&5%
Harlew's Burglar-Proof Ventilating.....Net
Payson's Perfect.....Net
Payson's Signal (new list).....Net

SAWS.

Atkins' Circular.....Net
Atkins' Band.....Net
Atkins' Cross Cuts.....Net
Atkins' Mulay, Mill and Drag.....40%
Atkins' One-Man Saw.....Net
Atkins' Circular Solid and Inserted Tooth.....50%
Atkins' Bands over 2 in. wide.....60%
Atkins' Bands under 2 in. wide.57&10%
Atkins' Mill, Mulay and Drag.... 50%
Atkins' Cross Cuts.....40%
Atkins' One Man.....40&10%
Atkins' Narrow Cross Cuts.....40%
Atkins' Wood Saws and Blades.40&10%
Atkins' Hand Saws.....40%
Atkins' Compass Saws.....50%
Atkins' Butcher Saws.....40&10%
Disston Circular Solid and Inserted Tooth.....50%
Disston Cross Cuts.....Net
Disston Narrow Cross Cuts.....Net
Disston, Mulay, Mill and Drag....40%
Disston Framed Woodsaws.....35%
Disston Woodsaw Blades.....40%
Disston Woodsaw Rods.....25%
Disston Handsaws, Nos. 12, 99, 9, 16, D100, D8, 120, 76, 77, 8.....25%
Disston Hand Saws, Nos. 7, 3.....30%
Disston Compass, Keyhole, etc....25%
Disston Butcher Saws and Blades.35%

SAW FILERS

Stearns'.....25%
Silent saw.....35%
Sargent's.....60&30%
Reading.....37½%

SCALES.

Family, Turnbull's .....30@30&10%
Hatch, Counter:
Platform, 4 lb. by ½ oz..doz...$5.75
2 Platforms, 8 lb. by ½ oz. doz $16 00
Union Platform, Plain.....$1.75@$2.00
Union Platform, Striped.. $1.85@$2 15
Chatillon's Eureka.....25%
Chattilon's Favorite.....40%
Chatillon's Grocers' Trip Scales...50%
Pelouze Scales, Household Counter, Confect. Postal, Ice, &c.....50%
"The Standard" Portables.....45%
The Standard" R. R. and Wagon 50%

SCREWS.

BENCH AND HAND.

Bench, Iron.....per doz. 60%
Bench, Wood, Beech..per doz. $3 50
Hand, Wood.....30%

COACH, LAG AND HAND RAIL.

Coach and Lag, Gimlet Point, list Sept. 20, 1899.....75@75&10%
Hand Rail, list Jan. 1, 1871.....75%

JACK SCREWS.

ack Screws.....70%

WOOD.

MANUFACTURERS' CIRCULAR PRICES

New List.
Flat Head Iron.....90&5%
Round and Oval Head Iron.....85%
Flat Head Brass.....85%
Round and Oval Head Brass.....82½%
Flat Head Japanned.....82½%

SCYTHES.

Blood's.....$ 5 50
Clover..... 5 50
Grain Clipper, Blood's..... 10 50
Hollow Clip..... 5 50
Silver Clip 5 50
Honest Dutchman..... 5 50

SHEARS.

	7	8	9 in.
Best.....	$16.00	$18.00	$20.00 gro.
Good.....	13.00	15.00	17.00 gro.
Cheap....	5.00	6.00	7.00 gro.

Straight Trimmers, &c.:
Best Quality Jap.....70@70&10%
" Nickel.....80@60&10%
Fair qual. Jap.....80@80&5%
" Nickel .....75@75&10%
Tailors' Shears.....40@40&10%
Acme Cast Shears.....40@40&5%
Heinisch's Tailors' Shears. 40@40&5%
Wilkinson's Hedge 50%
Wilkinson's Sheep.....1900 list, 50%

SHINGLES, METALLIC.

Eastlake I. C. Tin Shingles, painted, pr sq.....$4 25
Eastlake I. C. Tin Shingles, galvanized, pr square.....$6 00
Octagon Fluted I. C. Tin Shingles, painted, per square..$5 50
Octagon Fluted I. C. Tin Shingles, galvanized. pr sq....$7 25

SIFTERS.

Eclipse.....per gr $15 00
Hunter's Genuine.....per gr $16 00

SKATE SHARPENERS.

Skate Sharp., Eureka, per doz $2 00 net
Washer Cutters, Woodard's, per doz.....$2 50 net

SLATE.

GENUINE NO. 1 BANGOR.

24x14, 24x12, 12x 8	$3 50 pr sq.	20x10, 18x10, 18x 9, 16x 8	$4 50 pr sq
22x11, 20x12, 18x12, 16x12, 14x10, 14x 8, 14x 7	$3 75 per sq.	16x10, 16x 9	$4 25 pr sq
		12x 7, 12x 6	$3 25 pr sq

GENUINE NO. 1 BANGOR RIBBON.

24x14, 24x12	$3 00 pr sq.	20x10, 18x10	$3 50 pr sq
22x11, 20x12, 14x 8, 14x 7	$3 25 pr sq.	18x 9, 16x10, 16x 8	

SNAPS.

German .....40@40&10%
Covert Mfg. Co.:
Derby.....35&2%
High Grade .....45@2%
Jockey.....40&2%
Trojan .....45&2%
Yankee.....35&2%
Yankee, Roller.....30&2%
Covert's Saddlery Works:
Banner.....60&10%
Crown.....60&10%
Model .....60&10%
Triumph .....60&10%
W. & E. T. Fitch Co.:
Bristol .....40&10%
Empire.....50&5%
German 40%
National .....50&5%
Perfect.....45%
Clipper.....50&5%
Champion.....40%
Security.....40%
Victor.....60&5%
Oneida Community:
Solid Steel.....65@65&10%
Solid Swivel.....65&10@65&10&10%
Sargent's Patent Guarded...66⅔&10%

SOLDERING FURNACES.

No. 3 Gems tin reservoir.....$6 00
No. 6 Gems copper reservoir..... 8 50
Gem Gas Pots..... 3 25
Clayton & Lambert No. 1 Fire-Pot 6 00
Clayton & Lambert's Special Fire-Pot..... 4 50

SPRINGS, DOOR.

Star (Coil) list Oct. '95.....net
Torrey's Rod 39 in. Per doz. .....$1 20@$1 25
Warner's No. 1.....net 75

SQUARES.

Steel and iron.....70&10%
Nickel plated.....70&10%
Try squares and bevels.....60&10%
Disston's.....70%
Bemis and Call, pocket.....30%
Winterbottom's try & mitre.....30%
Starrett's.....25%
Stanley's Rosewood Handled, T., new list.....33⅓%

STAPLES.

Barbed Blind .....per lb., 10c
Poultry Netting.....per lb., 5c

STAPLE PULLERS.

Russell Staple Pullers..per doz., $9 00

STOVE PUTTY.

1, 10 & 25 pound Cans.....per lb., 5c
500 pound Kegs.....per lb., 4½c

STROPS.

RAZOR.

Emerson.....60 to 60&5%
Imitation.....20, 10&5%
Torrey's.....20%
Tower & Lamont.....per doz $4 00
04 Combination.....per doz 3 75

TACKS.

List Jan. 15, '99.
Carpet Tacks, American.....90&10%
American Cut Tacks.....90&10%
Swedes Iron Tacks.....90&20%
Swedes Upholsterers' Tacks.....90&20%
Gimp Tacks .....90&20%
Lace Tacks .....90&20%
Trimmers' Tacks.....90&20%
Looking Glass Tacks .....70&10%
Bill Posters' and Railroad Tack90&10%
Hungarian Nails.....80%
Common and Patent Brads....80&10%
Trunk and Clout Nails.....75&10%

TRAPS.

GAME.

Oneida Pattern .....75&5@75&10&5%
Newhouse.....45@50%
Hawley & Norton.....65@5&70%
Victor (Oneida Pattern) ...75@75&10%
Star (Blake Pattern) ....65&10@70&5%

MOUSE AND RAT.

Mouse, Wood, Choker, doz. holes 10c
Mouse, Round or Square Wire, doz.....$0.85@1.00
American Pattern French Rat and Mouse Traps—
No. 1, Detroit Marty Pattern, per doz. $4.50; in ½ gro. lots, per doz $4.00
No. 2, Detroit Marty Pattern, per doz, $3.25; in ½ gro. lots, per doz.....$3.00
Detroit Marty Pattern Mouse, per doz. $2.00; in ½ gro. lots, per doz.....$1.75
Diamond Joe Mouse Traps, per doz.....60c
Diamond Joe Rat Traps, per doz.$1.00
Marty French Rat and Mouse Traps. (Genuine:)

TWINE.

Flax Twine—	BC	B
No. 9, ¼ and ½ lb. Balls...	20c	24c
No, 12, ¼ and ½ lb. Balls ...	17c	20c
No, 18, ¼ and ½ lb. Balls ...	14c	17c
No. 24, ¼ and ½ lb. Balls	14c	17c
No. 36, ¼ and ½ lb. Balls...	13c	16c

Chalk Line, Cotton, ½ lb. Balls18@20c
Cotton Wrap., 5 lb. Balls to lb 16 to 20c
2-Ply Hemp, 1½ lb. Balls (Spring Twine) .....12@15c
3-Ply Hemp, 1 lb. Balls.....12@15c
3-Ply Hemp, 1½ lb. Balls .....
2, 3, 4 and 5-Ply Jute, ½ lb. Balls....8c
Mason Line Linen, ½ lb. Balls 45c
No. 264 Mattress, ¼ and ½ lb. Balls 34c
Wool.....5¼@8c

VISES.

Solid boxes.....40%
Parker's.....20%
Howard's.....35%
Bonney's.....35%
Trenton.....40%
Stearns'.....50%
Cheney's.....12½%
Massey's.....25%
Parallel.....30&5%
Holland's.....35%
Stevens'.....25%
Miller's Falls.....40%
Prentiss.....20%
No. 1, Rat, each $1.12½; per doz. $12.00
No. 3, Rat, per doz. $6.00; case of 50.....$5.25 doz.
No. 3½, Rat, per doz $4.75; case of 72.....$4.25 doz.
No. 4, Mouse, per doz. $3.50; case of 72.....$2.75 doz
No. 5, Mouse, per doz. $2.75, case of 72.....$2.25 doz.
Schuyler's Rat Killer, No. 1, per gro. $30.00; No. 2, per gro. $30.00; Mouse, No. 3, $18.00.....50%

FLY.

Balloon, Globe or Acme..... doz. $1.15@1.25; gro. ... $10.50@11.00
Harper, Champion or Paragon.... doz. $1.25@1.40; gro....$12.00@12.50

TROWELS.

Disston Brick and Pointing 30%
Disston Plastering.....25%
Disston "Standard Brand" and Garden Trowels.....40%
Never-Break Steel Garden Trowels.....gro. $7.00
Peace's Plastering.....30%
Rose Brick and Plastering.....25&5%
Woodrough & McParlin Pl'st'ring.

WASHERS.

LEATHER, AXLE—

Solid.....80&10&10@85%
Patent.....85&10@85&20%
Coil: ⅜ 18c, 1 19c, 1⅛ 20c, 1¼ inch. 23c per 100

IRON OR STEEL.

Size bolt 5-16 ⅜ ½ ⅝ ¾
Washers $5.20 $4 30 $3.00 $2.30 $2.00
In lots less than one keg add ¼c per lb; 5-lb boxes add ½c to list.

CAST WASHERS.

Over ½ inch, barrel lots per lb .....1½@1¾c

WELL WHEELS.

8-in., $2.20.....10-in., $2.60
12-in., $3.25.....14-in., $3.25

WIRE AND WIRE GOODS.

Brt. and Ann., 6 to 9, 70&10@70&10&5%
Brt. and Ann., 10 to 18, 72½@72½&10%
Brt. and Ann., 19 to 26, 75&7½@75&10%
Brt. and Ann., 27 to 36, ...75&10&5@75&10&7½%
Cop'd and Galv., 6 to 9, ...70@70&10%
Cop'd and Galv., 10 to 18, ...70&10@70&10&5%
Cop'd and Galv., 19 to 26..... .....75&7½@75&10%
Cop'd and Galv., 27 to 36, ...75&10@75&10&5%
Tinned, 6 to 14.....75@75&5%
Tinned, 15 to 18 .....70&5@70&10%
Tinned. 19 to 26.....70@70&5%
Tinned, 27 to 36.....65&10@70%
Annealed Wire on Spools..... .....70&5@70&10%
Brass and Copper Wire on Spools.....50&10%
Brass, list Feb. 26, '96.....25%
Copper, list Feb. 26, '96.....15%
Cast Steel Wire.....50%
Stubs' Steel Wire, $6.00 to £.....40%

BRIGHT WIRE GOODS.

List April 1, 1901..... 80&20%

WIRE CLOTH AND NETTING.

Galvanized Wire Netting.....80&20%
Ptd Screen Cloth per 100 ft.....$1.10
Light Hardware Grade:
2-8 Mesh, Plain (8c list) sq ft.... 1½c
2-8 Mesh, Galv. (8c list) sq ft....2½c

WRENCHES.

Agricultural.....70&10%
Case lots.....75&10%
Acme.....60&5%
Baxter's S.....60&10%
Bull Dog.....70%
Coe's Genuine.....40&10&5%
Coe's "Mechanic's"..40&10&10&5&5%
Alligator.....60&10&10%
Bemis & Call's:
Adjustable S.....35&5%
Adjustable S Pipe.....40%
Briggs' Pattern.....30&10%
Combination Black.....40&5%
Combination Bright.....40%
Cylinder or Gas Pipe.....55%
Extra Heavy.....45%
Merrick's Pattern.....50%
No. 3 Pipe, Bright.....55%
Bindley Automatic.....30%
Boardman's.....33⅓%
Donohue's Engineer.....40&10%
Eagle.....50&10%
Gem Pocket.....30%
Hercules.....70%
Knife Handle, Machinists' (W & B.): 0&10%
Case lots.....50&5%
Less than case lots.....6%
Improved Pipe (W. & B.).....50&10
lid Handles, P. S. & W.....&10 &
Soveenson..... 100

Wants and Sales.

For yearly subscribers to THE AMERICAN ARTISAN will be inserted under this head advertisements of six lines WITHOUT CHARGE, for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they read the advertisement in THE AMERICAN ARTISAN.

BUSINESS CHANCES.

PATENTS HUBERT E. PECK, 623 F St., N. W. Washington, D. C. Consulting Expert in Patent Causes, U.S. and Foreign Patents. Send for leaflet on "Rejected Patent Applications." Honest work but no "Something for Nothing" offers.

For Sale—Half or whole of hardware, plumbing, pumps and windmill business; in city of 5,000 population, in North Central part of Wisconsin—Horses, wagons, etc., or not. Entire business invoices about $6,000. Address "Rare Chance," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 2

For Sale—Stock of hardware, stoves, tinware, etc.; in one of the best towns in Southern Wis.; tin-shop in connection; stock will invoice 1200 to 1500 dollars. Address "Invoice," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 2

Wanted—Hardware stock in live town: about $2,000. Would consider taking active partner; have business ability; am tinner, and up-to-date in heating work; give particulars. Address "Box Act," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 2

Wanted—To buy a good paying hardward business, from $2,000 to $3,500. In town of from 500 or more inhabitants, with good territory. Give amount of business, size of stock and class of people, size of store and rent. Enclose stamped envelope for reply. Address, B. A. H., Rockwell City, Iowa. 2

Wanted—A partner in the manufacturing of wire goods; viz.: rat and mouse traps, flue stop holders and stove pipe holders. I have the tools and patents; or would sell the business. J. B. Davis, Abingdon, Ill. 2

Do You Want to Retire and Exchange Your Hardware—For a beautiful suburban home of 13 acres, adjoining a live Iowa town of 2,000 people. Highly improved house of 10 rooms, remodeled last fall, heated by furnace; place about half in fruit; cost owner last year $4,200; will put in on a cash deal $3,500; this is a rare chance. I can handle a stock up to $7,000. Address "Retire," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 2

Wanted to Buy—An established hardware in live Iowa county seat town 4,000 to 7,000; give full particulars in first letter, as to town, stock, annual sales and competition. Address "Particulars," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 2

320 Acres Unimproved Land—Clear; in Gove Co., Kansas, 3 miles from county seat; value $3,200, to trade for hardware stock of not over $3,500. Address "Mills," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 2

For Sale—A new stock of hardware, stoves and tinware; in Northern Illinois; tin shop in connection, will invoice about $2,700. Doing fine business. Best reasons for selling. Cheap rent. Address "P. & S.," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 1

For Sale—My stock of hardware and implements; will invoice about $3,000; it is all new and in good condition. Good reason for selling. Address, E. W. Putman, Henning, Ill. 1

For Sale—Tin shop in good town of 1000 inhabitants in Northern Indiana; only shop in town. Will sell cheap for cash if taken at once. Address, S. L. Prickett, Milford, Ind. 1

Wanted—Hardware store and tin shop. Address "M. M.," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 1

For Sale—Clean stock of hardware. In thriving city of over 30,000 inhabitants. A lake port where there is a large amount of labor employed at good wages. One concern paying for labor over ten thousand a week. But little competition. Three other hardware stores, and all agreeable to make money. Reason for selling, old age and wish to retire. Would take a young man that is a tinner as partner that had a prospect of buying entire stock in a few years. Stock invoice seven to eight thousand dollars. Address "Sale Business," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 26

For Sale—Clean and up-to-date stock of hardware and implements. In one of the best county seat towns in south-eastern South Dakota. Population 1500. Gas light, waterworks, telephone system, good schools, etc. Stock will invoice about $4,500. Will sell with or without building. This will bear investigating. Best of reasons for selling. Address "637," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 26

I Have 140 acres improved land in Wayne Co., Ill, 10 acres orchard, 25 acres fine, unculled timber, 20 acres pasture, 52 acres meadow, 25 acres corn land and 8 acres yard, barn-yard, truck patch, etc., fair frame house and good barn. Incumbrance $1,500, can run ten years @ 6% if desired. Price $45.00 per acre. Will exchange equity for good, clean stock of hardware. F. A. Clausen, Garrett, Illinois. 25

For Sale—A new, clean stock of hardware, stoves and tinware, in a good town of about 7,000 inhabitants; stock will invoice about $3,000. In Northern Illinois. Address "Stoves," care of THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago, Ill. 25

For Sale—A leading general store, situated in one of the most prosperous farming districts in Iowa, desires to sell their stock of hardware and tinners' tools to ambitious, young or middle age man. Stock will invoice $2.000 We have a fine class of trade with exceptionally small losses from bad debts. This is a good opportunity for a German as half of the population in this county are of that nationality. Address "Good Thing," care of THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago, Ill. 25

For Sale or Trade—Full or part, set of tinner's tools and machines, all in very fair condition. R. Z. Tracy, Irving Park Sta., Chicago, Ill. 24

For Sale—Tin shop, furnace and plumbing business; pumps and well supplies, fine room for storing stoves together with a 3 years' lease of the building, and rent cheap; only one in town of 1600—about 35 miles from Chicago, in Indiana. Good reason for selling, at a bargain. Address, Box 158, Hobart, Indiana. 24

For Sale—Hardware Stock and Building; (total value $10,000 00), in South Central Minn. Last year's sales $20,000.00. This is a big chance for your future; can reduce stock to suit. May consider a land trade for building. For further information address "Box In," care of THE AMERICAN ARTISAN, 69 Dearborn St. Chicago, Ill 24

TINNERS' TOOLS.

For Sale—1 complete set of tinner's tools of latest pattern including square shears; write for list and price.. 201 2nd St., Cedar Falls, Ia. 2

Wanted—A second hand cornice brake, 8 or 10 feet State best cash price and make. Address, F. C. Hunt & Co., St. Charles, Ill. 2

For Sale—A No. 4½ Barnes' Screw Cutting Lathe, complete with tools and chuck, etc., $35.00 (thirty-five), cash buys this machine. Wm. Matt, Fort Dodge, Ia. 1

For Sale—Second-hand World cash register in good order. Write for price. Mann & Co., Pierson, Ia. 26

Wanted—A 2nd-hand pipe tapping machine. Send me prices and description. C. A. Bergh, Mondovi, Wis. 25

For Sale—One complete set tinner's tools, including 1 4 foot brake; all the tools that could be used in a first class shop. Address "Tools," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 25

HELP WANTED.

Wanted—At once a good, live young man; one who can work in tin shop, and good salesman in store, one who is not afraid of work; must be strictly sober and honest; steady job to right man. Address, lock box 1516, Anita, Iowa. 2

Wanted—A tinner, must be a mechanic; wages $2.50 per day; steady work. Address, Fowler & Wolfe, 216 Court St., Paducah, Ky. 2

Wanted—An all around man for our shop; one thoroughly capable of making cornices, sky-lights and setting of furnaces; must also be a practical gravel roofer, and capable of making any patterns necessary for all kinds of work coming into a tin shop. For a reliable man that can handle our work steady employment will be given. Barnes & Vuss Co., Grand Forks, N. D. 2

Wanted—We are in need of a good, sober, all-around tinner and plumber, at once. Good wages and steady work the year around. Anyone in need of a position and can fill the above requirements, please write us immediately. Peter & Harvey, Manteno, Ill. 2

Wanted—Addresses of makers of some automatic, one piece, stove pipe elbow machinery. Address "Manufacturer," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 2

Wanted—Experienced foreman of good mechanical ability; for a nested stove pipe factory. Address "Manufacturer," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 2

Wanted—At once, a good A No. 1 tinner; can do furnace, bicycle and pump work, and any work that comes along in a country tin shop; work all year, winter and summer; write to Columbus Hardware Co., Columbus, Wis. 1

Wanted—By Feb'y or March 1st, first class tinner and pump man; one preferred who has some knowledge of furnace work and bicycle repair work; would like man who speaks Danish language; must be a hustler and honest; steady job if suited; give references and state wages; address, H. A. Ebert, Alden, Minn. 1

Wanted—Stove Salesman. State age, experience and salary wanted. Danville Stove & Mfg. Co., Pittsburg, Pa. 1

Wanted—We are in need of a good, sober, all-around tinner and plumber, at once. Good wages and steady work the year around. Anyone in need of a position and can fill the above requirements, please write us immediately. 3 Manley Bros., Harvard, Ill. 1

Wanted—Good house and sign painter and paper hanger. Must be sober and steady. State salary. Address Anton Popelar, Dodge, Neb. 26

Wanted—Competent man as superintendent of stove factory producing sheet steel and cast goods. Must be able to handle men and one who has good mechanical ideas. Address "Compete," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 26

Wanted—Experienced clerk for general hardware store in south-eastern South Dakota. Norwegian or German preferred. Give reference and state wages wanted. Address Box "Exc," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 26

Wanted—Good, sober, all-around tinner and plumber who can put up windmills and not afraid to work. Answer, stating wages expected. Newtson & Seaver, Hoopeston, Ill. 26

Wanted—Experienced and competent stove and range traveling salesman to sell the "Eclipse" line in Nebraska. Stock carried at Omaha. Address Eclipse Stove Co., Mansfield, O. 26

Good Tinner Wanted—One that understands plumbing, iron pipe, and has some knowledge of hot water and steam heating. Steady work for right man, must be a married man and sober, German preferred. Address "P. I.," care of THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago, Ill. 25

Wanted—Experienced Stove Salesman for Northern Illinois. Send References; apply by letter. Bergstrom Bros. & Co., Neenah, Wis. 25

Wanted—By Jan. 1, 1902, a first class tinner and clerk; good, steady job at good wages; must be honest, sober, industrious; would like him to understand pumps and plumbing; give references and wages. Thos. Rawlings, Wakefield Neb. 25

Wanted—Two Salesmen, one for Michigan and one for Southern Indiana. In your application state your age, reference, amount of business you wrote in 1900 and 1901 and salary asked. Enterprise Stove Co., Vincennes, Ind. 24

SITUATIONS WANTED.

Situation Wanted—By first class tinner and plumber, A 1 mechanic; thoroughly understands steam and hot water heating, furnace work and all kinds of in and outside tin and sheet iron work; 11 years' experience, strictly sober and a hustler; can take entire charge of shop, and also owns a complete set of tools to carry on all above work; if you want a good man, write me. Address "Competent," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 2

Situation Wanted—By young man 23 yrs. of age to finish learning tinner's trade; sober, and steady habits; and willing to do anything around store and shop. Have had three months' experience in shop and store; can make stove pipe and do repair work or put up spouting; have also had experience in setting up farm machinery. Northern Iowa or Southern Minnesota preferred, can give references if required. Address, Lock Box 368, Estherville, Iowa. 2

Position Wanted—As tinner; in nearly all its branches, both city and country. I am steady, sober and reliable, and can furnish good references from my present and past employers. Address, D. F., 247 East Erie Street, Chicago, Ill. 2

An Experienced Stove, Range and Furnace Traveler—With established trade and 6 years' acquaintance with hardware dealers in a Western State, wants position; has good record and habits. Would like to hear from some Co. or Mfg who needs a man. Address "Box M. R.," care of THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago, Ill. 2

Wanted—A position as tinner, at once; have had 4 years' experience at in and outside work, can do furnace and bicycle work. Can give good references. Address P. O. Box 131, Lakefield, Minn. 1

Wanted—By man of 12 years' experience in the Hardware and Stove line, position with either wholesale or retail house after Jan. 1st. A 1 builders' hardware and stove salesmar; can furnish best of references. Address A. R., Station D., Detroit, Mich. 1

Wanted—Situation in a retail or wholesale hardware or stove business as clerk or salesman, by a hustling young man with experience; have made the stove business a specialty the past two years. Can furnish first class references from present employers. Ohio, Indiana or Illinois preferred. Address "Ambition," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 1

Situation Wanted—By a reliable young tinner with 12 years' experience at tinning and plumbing. Can plan and put up furnaces. First-class mechanic. Situation wanted west of Mississippi river. A. B. Curtis, care of Gen. Del., Sioux City, Ia. 26

Wanted—Position in hardware store. 5 years' experience; 2 years in tin shop. Prefer small town. Any part of country. Address J. O. Harney, Lawton, O. T. 26

Wanted—A position with a retail hardware and implement house at once. Have had 15 years' experience in the local trade and on the road. Can do tin work, pump work and some plumbing. Am honest, industrious and a No. 1 salesman. Address "M. O.," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 26

Wanted—By young married man, position in retail hardware; capable of taking entire charge, experience, best references. Address, H. T. Cornell, care C. W. Hackett Hardware Co., St. Paul, Minn. 25

Wanted—A position as traveling salesman with a leading stove house, either city or country. Have a high record and wide acquaintance in city and suburbs. Understand gasoline and oil stoves thoroughly. A-1 references. Address "Energetic Man," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 25

Wanted—A man of 18 years' experience in the hardware line, desires a position either as traveling salesman or manufacturers' agent for a general line of stoves and furnaces, or a general line of hardware. Would like to sell on commission in Mich.; thoroughly reliable and can furnish best of references. Address K., 420 McCullum St., Bay City, Mich. 25

SPECIAL NOTICES.

Wanted

Three or four first-class experienced furnace salesmen for the N. W. states; by an old established house. Address "Old Established," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 2

FOR SALE.

Hardware business and good will of trade; long established. $10,000 to $12,000; town 50,000, central southern N. Y. On four trunk line railroads; is special opening for wholesale and retail business. Advantageous terms will be made with an immediate buyer. Address "Hardware Business," care of THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago, Ill. 1

Wanted

A leading steel range firm desire an A No. 1 pattern fitter. Address "M," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago. 23

Rare opportunity to purchase a profitable wholesale and retail hardware business; established twenty years; doing over $200,000 yearly. Reason for selling, ill health. This is positively the finest proposition ever offered in the West.

Odlum-Kurtzman Co., 26
Minneapolis, Minn.

Situation Wanted

By a first class heating engineer as hot water and furnace salesman, with a large trade established in Eastern Ohio and Western Pennsylvania, especially in Pittsburg and vicinity, with the very best first class references. Open for same Jan. 1st, 1902. Address "C. A.," in care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 24

WANTED.

Tinners to increase their means by soliciting subscriptions for THE AMERICAN ARTISAN. Liberal commission. Write for particulars to THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 23

SPECIAL NOTICES.

Boiler and Heater Patterns Wanted.

We are in the market for a set of patterns to make Steam and Hot Water House Warming Boilers. They must be practical and in good condition. Address,

"Box 44,"

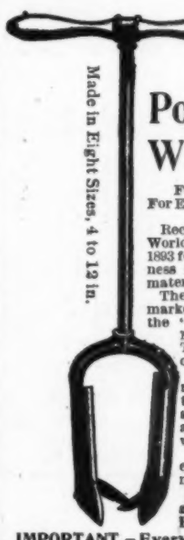
care of THE AMERICAN ARTISAN, Chicago, Ill 23

SPECIAL NOTICES.

MONTAGUE COHEN
39 PARADISE ST., LIVERPOOL, ENGLAND

Can accept the agency for a few lines of American manufacture in British Isles and Continental Europe. Will give prompt attention to same. Can furnish references. 16

THE MAN WHO SELLS STOVES
should lose no time in becoming acquainted with
DIXON'S GRAPHITE CEMENT
It is the most effective article in existence for the repairing of firebrick in stoves and furnaces. We will send you sample and prices free for the asking.
JOSEPH DIXON CRUCIBLE COMPANY *Jersey City, N. J.*



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Patent Improved
Post Hole and Well Auger,

For Post Holes and Wells, For Electrical and Telegraph Purposes.

Received Highest Award World's Columbian Exposition 1893 for convenience and effectiveness in operation, excellence of material and construction.

There are other augers on the market, claimed to be as good as the "Iwan" Auger. THEY ARE NOT. BEWARE OF THEM. The "Iwan" is the standard of excellence.

It is the only auger that has met with universal satisfaction under all conditions of soil. It is unexcelled for easy and quick work. No suction when removed from hole.

It should be in the hands of every dealer, or any one who needs a good post hole auger.

Received Highest Award at World's Columbian Exposition.

IMPORTANT.—Every Auger bears our stamp and label.

We manufacture also Post Hole Diggers, Drain Cleaners, Chimney Tops, Conductor Pipe Hangers, Hay Knives, etc.

Sold by the jobbing trade. Write for prices and illustrated circular. Manufactured exclusively by

IWAN BROS.,
STREATOR, ILL.

The House Warming Manual

Contains the Essays on Warm Air, Hot Water and Steam Heating submitted in THE AMERICAN ARTISAN competition for $300.00 prizes.

The House Warming Manual

Contains the combined wisdom of leading experts in the three great branches of heating, rather than the conjectures of a single man.

The House Warming Manual

Is up-to-date, not out-of-date;
Practical, not theoretical;
And is in fact a mirror of the heating practice of to-day.

270 pages. Bound in red, with cover embossed with gold.

Price, $3.50 per Copy.

ADDRESS:
DANIEL STERN,
69 Dearborn St., CHICAGO.

Jay Commons, Aurora, Mo., writes:—"Please take out my advertisement. It has been entirely satisfactory."

OUT THIS OUT.

To the Publishers THE AMERICAN ARTISAN,
69 Dearborn St., Chicago.

Please send us THE AMERICAN ARTISAN each week for three months. At the end of that time we will remit Two Dollars, for one year's subscription, or 50 cents in case we decide to discontinue.

NAME _____

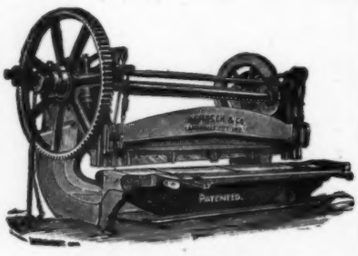
ADDRESS _____

TOWN _____

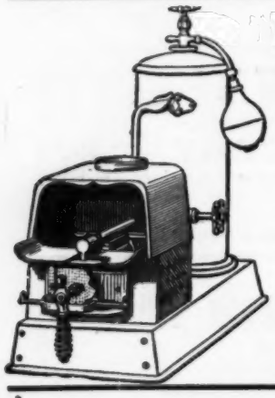
STATE _____

Improved Shears and Gauge Punches, with or without engine, or Direct Steam Shears 8 different styles [hand or power].

Automatic Self-Opening Rolls, quickly and easily adjusted, all sizes to 20 feet. Also Crimping Rolls, Hand and Power Punches, Labor-saving machines, etc.



BERTSCH & CO.. • • Cambridge City.



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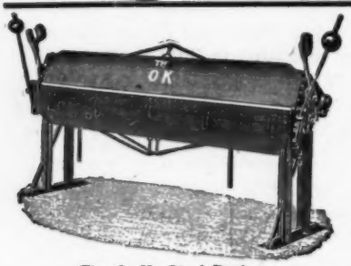
Always Ready.
No Smoke.
No Odor.
No Noise.
Unexcelled.
Unequaled.
Unrivaled.
Safe, Sure.
Durable.

Made Only By

Thirty Years Experience.

Burgess Soldering Furnace Co.,

COLUMBUS, OHIO, U. S. A.



The O K Steel Brake.

The O K Steel Brake beats them all. Stronger, less expensive, more durable, works faster. Less freight charges. It is up-to-date. Sold by

H. Weiss & Co., 20 Cliff St., New York, N. Y.
Richards & Co., 60 Union St, Boston, Mass.
Janney, Semple, Hill & Co., Minneapolis, Minn.
D. H. Allison, 816 15th St., Denver, Colo.
C. Sidney Shepard & Co., Kansas City, Mo.
Holbrook, Merrill & Stetson, San Francisco and Los Angeles, Cal.
C. J. Sullivan, 1112 Union St., Seattle, Wash.
Illinois Roofing & Supply Co., Chicago, Ill.

Dreis:, Andrews & Krump,

MANUFACTURERS. 3039 & 3041 S. Halsted St., CHICAGO, ILL.

Trade "M&M" Mark

The "M & M" 450 CANDLE POWER ARC LAMP

Trade "M&M" Mark

THE BEST IS THE CHEAPEST.

STORE LAMP. Patented.

Burns 12 to 15 hours with one filling. Diffuses more light than any electric arc. Does not affect your insurance policy. Permitted by all insurance companies. Absolutely non-explosive, odorless and smokeless. Tried, tested and used commercially for three years. Over 25,000 in practical use. One satisfied customer says:

Joliet, Ill., Mch. 22, 1901.
Martin & Moorhead,
54 W. Washington St.,
Chicago, Ill.

Gentlemen: We used six of these lamps last year and kept an accurate account of the expense. The gasoline cost us $25 and the chimneys and mantels $20.46 making a total cost of $45.46 for six lamps for a year. We believe we have just as good light as though we had had six electric arc lights, which would have cost us $360.

Yours respectfully,
Barrett Hardware Co.

STREET LAMP. Patented.

There are others. We are saving light consumers thousands of dollars every month. We will furnish full particulars on request. Agents wanted in all unoccupied territory. Exclusive territory given. Our Pressure Mantles without an equal for use with any gasoline pressure light

Acorn Brass Works, DEPT. 4, **Chicago.**

Charles Hahn, Red Lodge, Mon., writes: "Please discontinue ad of 'tools wanted.' Much obliged. Had a dozen offers."

Sheet Metal Ornaments
Steel Ceilings and Hose Pliers
WE MAKE THE FINEST CRYSTALLIZED
STOVE BOARDS
ON THE MARKET.
MICHIGAN HARDWARE MFG. CO.
Grand Rapids, Mich.

Bradner Smith & Co.

Paper Makers,

CHICAGO.

BUILDING,
WRAPPING,
WRITING,
NEWS,
BOOK

Paper

Send for Catalogue.

Steam Heat and Open Fires.

French Lick Springs

In the Indiana Highlands on the

Monon Route

Hotels Open all the Year Round.
Two Trains Daily from Chicago.
Through Sleeper from Dearborn Station, 9 p. m.
Send for booklet.
City Ticket Office, 232 Clark St.
FRANK J. REED, G. P. A.. Chicago.

H. G. Groth
Cedarburg, Wis., Writes:

"Please take out my advertisement for a tinner. I am "overflooded" with letters from all parts of the State, and was able to select one of them."

IN CASE OF A FREEZE UP

$4.50 Net.

A No. 5 Fire Pot Cannot Be Beat. By removing a spring key the top section can be removed, exposing an open fire which may be used as a torch for thawing frozen pipes taking soil pipe apart, or in doing any work that a torch will do, and in addition you have a complete fire pot, enabling you to heat soldering coppers and melt a kettle of metal at the same time. Our catalog tells all; it's free and is worth dollars to you.

Clayton & Lambert Mfg. Co.
DETROIT, MICH., U. S. A.

SEND TO THE

Willis Manufacturing Co.,

Galesburg, Ill.,

For a copy of their NEW CATALOGUE (just issued) OF CORNICE ORNAMENTS AND STATUARY.

Also send in Architects' Details for Estimates.

GARRY IRON & STEEL ROOFING COMPANY
CORRUGATED ROOFING SIDING & CEILING
CLEVELAND OHIO.

Write us for Catalogue and Low Prices on BEST
Steel Roofing, Corrugated Iron, Etc.
We are large manufacturers of these goods and can save you money.
SYKES STEEL ROOFING CO. Chicago, Ill., and Niles, Ohio.

PERFORATED METAL
THE ROBERT AITCHISON PERFORATED METAL CO. 305-307 DEARBORN STREET CHICAGO, ILL.

PLECKER'S CORRUGATED EXPANDING CONDUCTORS.
Made of Galvanized Iron in Ten-Foot Lengths without a Cross Seam. Will not burst when full of ice.

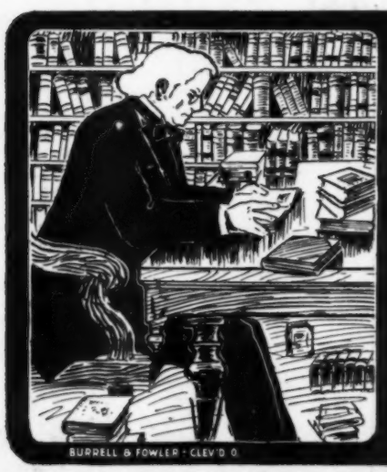
Clark, Quien & Morse, - Peoria, Ill.

American Tin Plate Company

MANUFACTURERS . . . . .

Tin Plate
Terne Plate
. . . and . . .
Black Plate

GENERAL OFFICES: Battery Park Bldg. New York.



A WHOLE LOT OF LEARNING

Won't put out a fire, but research and experience have taught us how to make Steel Ceilings and Side Walls that are fire proof, water proof and dust proof. An ounce of prevention is worth 10 pounds of fire insurance.

For clean business and a good profit, handle our product.
Write for catalog of designs and prices.

The Canton Steel Roofing Company,

New York Agency, 157 W. 23rd St. 269-R. CANTON, OHIO.

ROOFING

Roll and Cap Standing Seam. Corrugated.

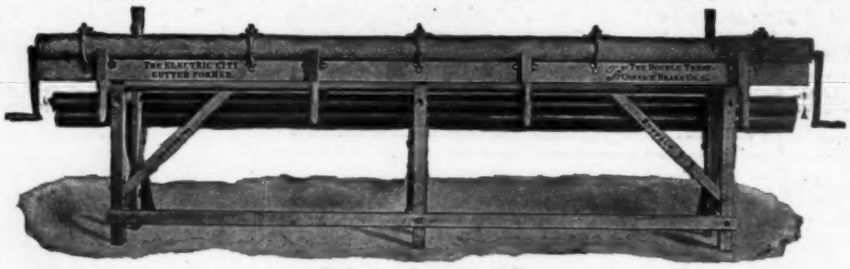
PLAIN, CRIMPED OR ROCK-FACED BRICK.

Eave Trough, Conductor Pipe, Elbows, Cornices, Sky-lights, Finials, Ventilators, Cut-Offs, Crestings, Etc.

La Crosse Steel Roofing and Corrugating Co., La Crosse, Wisconsin.

THE ELECTRIC CITY GUTTER FORMER.

New in Principle.



Mechanical in its Operation.

PATENTED JULY 30, 1901.

Price 50% less than other machines of equal capacity. See our "Mechanical Forcing Bar" before placing your order. Best device ever invented for forming long length gutters. Will pay for itself in a very short time.

We guarantee them to be exactly as represented in every way. Send for booklets illustrating and describing our Gutter Formers, and improved Cornice Brakes, with double edge on front leaf.

J. L. PERKINS & CO., 241 Lake Street, CHICAGO, Western Agents.

THE DOUBLE TRUSS CORNICE BRAKE CO., - - BUFFALO, N. Y.

Art Metal Ceilings

For Interior Decorations.

We have 40 different designs to select from. Our Stamped Ceilings are the most perfectly embossed ceilings on the market.

Estimates Furnished on Special Work.

SPECIALTIES:

Steel Ceilings, Zinc and Copper Ornaments, Statuary in Bronze, Zinc and Copper, Crestings, Finials, Capitals, Galvanized Steel Horses for Merry-Go-Rounds, Copper Plated Ceilings in Antique Finish, etc., etc.

Friedley & Voshardt

194-200 Mather St., CHICAGO, ILL.

PLAIN TALKS ON METAL CEILINGS

Have you ever stopped to consider the advantage of handling metal ceilings? If not, you are neglecting something it would pay you to look after.

You figure on cornice work, roof work, siding and eavespouting—all kinds of **exterior** sheet metal work—why not add the profitable line of **interior** work to your list?

The erection of Sheet Metal Ceilings and Sidewalls is right in your line—you have the necessary experience to handle it properly and to good advantage. Morever, it is work that often can be done when bad weather would not permit of working outside.

We Make it Easy to Figure on Metal Ceilings.

Send us sketch and exact dimensions of room and of ceiling to be covered. We will submit sketch and prices of appropriate designs. You can easily determine the price you will have to get for the ceiling erected in place. There's no guess work about putting up a ceiling—our construction drawing shows just where each piece of material belongs.

You may just as well get this class of work as not. Others are having great success in introducing and erecting our Metal Ceilings—why not you? Think it over; write us!

Perhaps we can make suggestions that will be helpful to you.

THE BERGER MFG. CO.,

CANTON, OHIO.

NEW YORK OFFICE: No. 210 E. 23rd St., New York, N. Y.
PHILADELPHIA OFFICE: No. 1013 Arch St., Phila., Pa.
NEW ENGLAND BRANCH: No. 176 Federal St., Boston, Mass.
WESTERN BRANCH: 19 & 21 S. Main St., St. Louis, Mo.

SPECIALTIES: Ceilings, Roofing, Siding, Eave Trough, Conductor Pipe, Hangers, Etc., Etc.

FOR

Coke Plates **Charcoal Bright Plates**
Terne Plates **Galvanized Iron**
Eaves Trough, Conductor, Roofing, Siding

We have a large stock and can make immediate shipment

ILLINOIS ROOFING & SUPPLY CO.

23 Lake Street, CHICAGO

The "Centennial" Rain-Water Cut-Off

The strongest, most durable and cheapest CUT-OFF on the market.

The only single Cut-Off made to fit CORRUGATED and Plain Pipe and which can be used without extra pipe or elbows. For sale by all leading jobbers.

Patent applied for. Manufactured only by

COONEY & GEIGER,
19 & 21 E. South St., INDIANAPOLIS, IND.

Art Metal Ceilings

For Interior Decorations.

Write for Catalogue and Prices.
Estimates Furnished on Special Work.

SPECIALTIES: Steel Ceiling, Zinc and Copper Ornaments, Statuary in Bronze, Zinc and Copper, Crestings, Finials, Capitals, Galvanized Steel Horses for Merry-go-Rounds, Copper Plated Ceilings in Antique Finish, etc., etc.

FRIEDLEY & VOSHARDT
194-202 MATHER St. CHICAGO, ILL.

Black—Black Silk Stove Polish is Black—Black Silk Stove Polish is Black—Black
Black **Black** **Black** **Black** Black
Black Black Silk Stove Polish is Black—Black Silk Stove Polish is Black Black
Black **Black** **Black** **Black** Black
Black Black Silk Stove Polish is Black—Black Silk Stove Polish is Black Black
Black Ask your jobber or write **Lewis D. Wynn,** Sterling, Ill. Black
Black—"Lest you forget" Black Silk Stove Polish is Black.—Black

SAMPLES SENT FREE
TO STOVE DEALERS

This New Patent Prepared Dry Stove Polish—it Mixes Quicker—Shines Quick and Easy—Black and Brilliant Waterproof and Rustproof—Keeps any length of time—Never Spoils—Cheapest Polish in the Market—1 Box will do as much work as 15 lbs. of paste—Size of Box, 10½Lx8¼ Deep, 6 in. Wide.

Ayling Brothers,
Address Department A. 8-14 HADDON AVE., CHICAGO, ILL.

Champion Stove Clay

The only Stove Lining made of crucible materials.
Packed in 2½ lb., 6 lb., and 10 lb. pasteboard boxes and also in bulk.
Order it from your jobber.
The best and most refractory lining made.

BRIDGEPORT CRUCIBLE CO.
BRIDGEPORT, CONN.

STOVE, RANGE AND FURNACE
REPAIRS OF ALL KINDS.
AMERICAN STOVE REPAIR WORKS,
186-188 West Seventh Street, ST. PAUL, MINN.

Durability & Economy

are the high cards that make our paints winners.

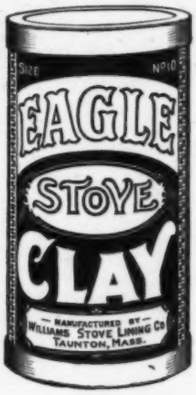
Buckeye Paint & Varnish Co.
TOLEDO, O.

BARKEEPER'S FRIEND.
Marble, Glass, Nickel, Brass, Copper, Tin and German Silver
can all be cleaned and polished with it easier than with anything else. Price 25 cents per pound.
Let us send you a free sample.
GEO. WM. HOFFMAN
295 E. Washington St., Indianapolis, Ind.
FOR SALE BY JOBBING TRADE

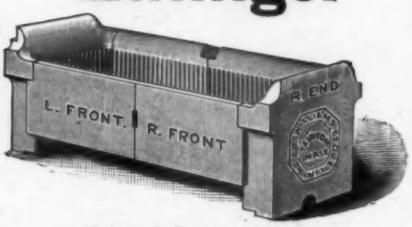
"Nothing except the mint can make money without advertising."—Gladstone.

Incandescent Gas Fuel.

Prices and Samples Free by Mail.



Brick Stove Linings.



Prompt Shipment and Best Quality Guaranteed.

Williams Stove Lining Co., Taunton, Mass.

REPAIRS FOR ALL STOVES

Pipe Dampers, Mica, Stove Rods, Paste, Stove Putty, Stove Knobs, Etc.

Wm. T. Dust Co.,
231 Brush St., DETROIT.

STOVE REPAIRS.

We have the patterns of the CHICAGO & ERIE STOVE COMPANY, and can furnish repairs for said stoves.

THE DEPINET FOUNDRY COMPANY.
ERIE, PENNA.

REPAIRS
FOR ALL STOVES.
Great Western Stove Repair Co.
MINNEAPOLIS, - - - MINN.

REPAIRS FOR ALL STOVES AND RANGES.

A. G. Brauer, 316-318 North Third St., ST. LOUIS, MO.

Patterns for Stoves Furnaces Heaters Ranges. Artistic Workmanship. Experience. Promptness. Our Patterns Are Money Makers.

Give us a trial. Pennsylvania Artistic Stove Pattern Works, 215 N. 2nd Street, Phila., Penn.

FOR **MICA**
Sheet, cut or uncut, Powdered and Flake
WRITE TO
ASHEVILLE MICA CO.
ASHEVILLE, N. C.

DO YOU WANT
STOVES AND HEATERS
that are easily sold and STAY SOLD. We have been very successful in designing patterns for such.

The Gobeille Pattern Co.
CLEVELAND, OHIO.

PATTERNS
UP TO DATE
Wood and Metal for Stoves, Ranges and Furnaces to Order.
W. L. MERSFELDER,
400 East Pearl, CINCINNATI, O.

THE GEO. W. COPE
STOVE PATTERN WORKS,
Randolph and Atwater Sts.
DETROIT, MICH.

BIG FOUR ROUTE

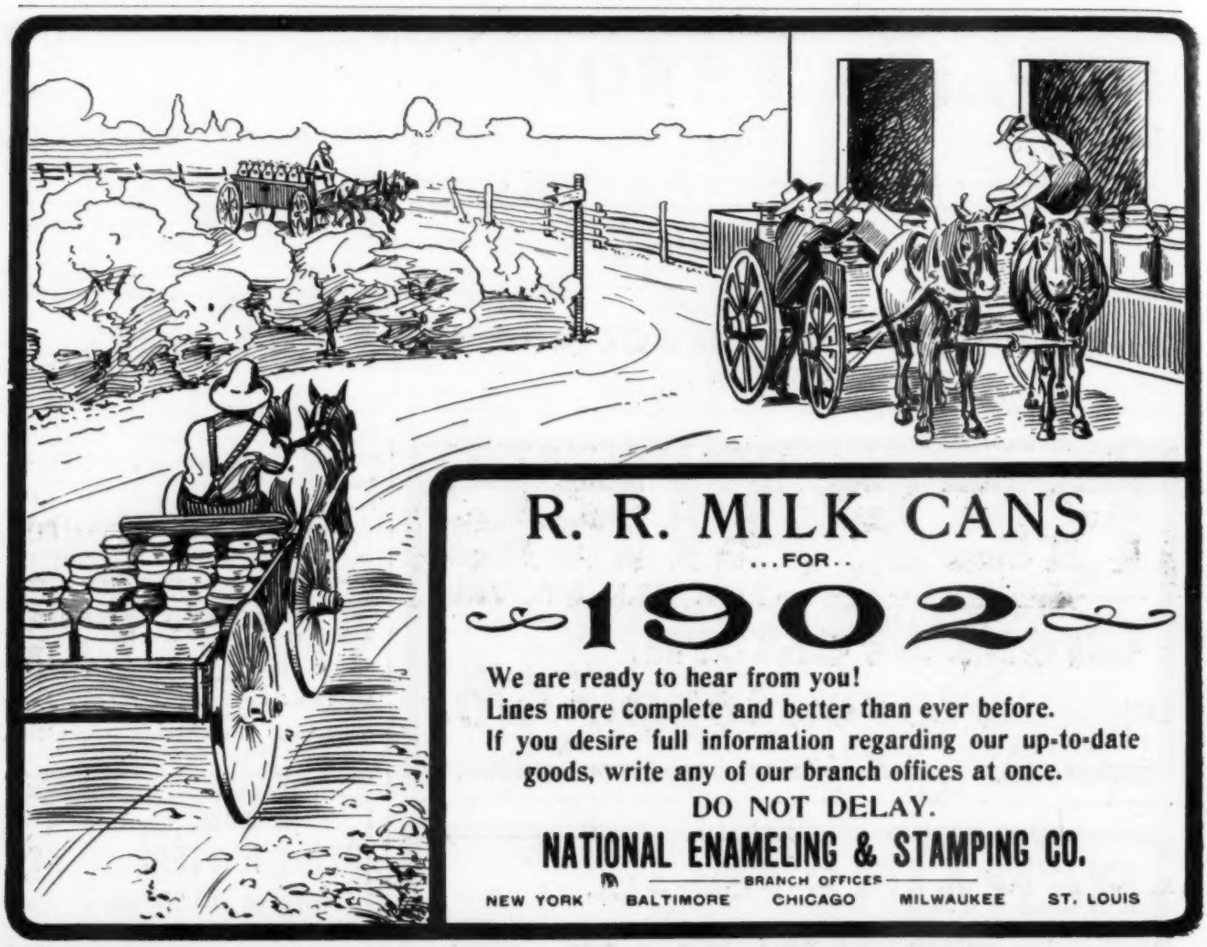
Chicago to Indianapolis, Cincinnati, Louisville, the South and Southeast

Peoria, St. Louis, Indianapolis, Cincinnati, Louisville To New York AND The East

W. P. DEPPE, A. G. P. & T. A.
W. J. LYNCH, G. P. & T. A.
CINCINNATI.

F. C. TUCKER, G. N. A., 234 Clark St., Chicago

JOS. J. SUCHANEK,
ST. OLAF, IA., WRITES:
"I would not be without The American Artisan at any price."



The Standard Lawn Mowers of the World are the

Pennsylvania Mowers

We received the Highest Award and Gold Medal Pan-American Exposition, 1901, on our full line.

Our Latest Production

The Pennsylvania Junior

Ball Bearing
Five Knives
Self Sharpening

Our factory produces and sells more high grade Lawn Mowers, and our capacity is far in excess of any other manufacture in the world.

Our Lawn Mowers are sold everywhere—in Europe and America.

The best testimonial of their merit lies in the fact that they have received the highest award at every Exposition or Fair where exhibited.

The Supplee Hardware Co.

Philadelphia, Pa.

Rubber.

That's just what it is that prevents you from receiving a shock when using this plyer. The handles are insulated. No danger whatever. Send for a **Green Book** of Hardware Specialties. It tells all about it.

Ask your dealer for these goods.

THOMSON BROS. & CO.,

Utica Drop Forge & Tool Co., Smith & Hemenway Co.,

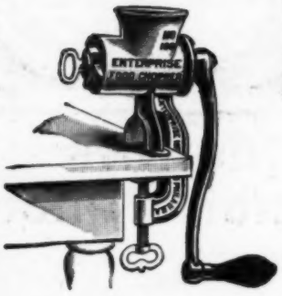
296 Broadway, NEW YORK CITY.

Stanley Rule and Level Co.

IMPROVED CARPENTERS' TOOLS **Sold by All Hardware Dealers**

NEW BRITAIN, CONN.

No other "Just as Good" as the



Enterprise Food Choppers

TINNED

Now made in TWO sizes

No. 100, chops 2 lbs. per minute, $1.50

No. 300, chops 3 lbs. per minute, $2.25

FOUR KNIVES WITH EACH MACHINE

Fine **Medium** **Coarse** **Nut Butter Cutter**

Order from your Jobber

Catalogue mailed Free

***The* Enterprise Mfg. Co. *of* Pa.**

New York Branch, 10 Warren Street **Philadelphia, U. S. A.** **San Francisco Branch, 105 Front Street**

Disston Hack Saws

ADJUSTABLE HACK SAW FRAME.
Oval Back, No. 4.

THE DISSTON BLADES HAVE THE PROPER TEMPER FOR THE WORK REQUIRED OF THEM.

PRACTICAL TESTS HAVE DEMONSTRATED THE SUPERIORITY OF THE DISSTON SAWS.

WE MANUFACTURE A COMPLETE LINE OF HACK SAWS AND BLADES.

Henry Disston & Sons, Inc.

KEYSTONE SAW, TOOL, STEEL AND FILE WORKS,
Philadelphia, Penna.

Fox

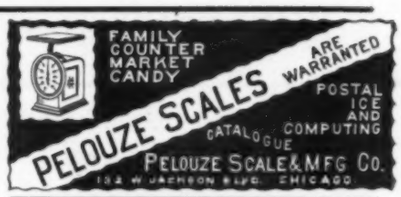
Brand Razors

are known as the best.

WE MAKE ALL WIDTHS AND STYLES. THE FOX TRADE MARK IS REGISTERED. SEND FOR CATALOGUE.

Fox Cutlery Co.,

928 MAIN ST., DUBUQUE, IA.
48 Center St., New York, N. Y., Canandaigua, N. Y.



A. E. Jacobson, Charles City, Ia., writes:

"Please take my ad for situation out, or I will have to hire a stenographer to do my corresponding. I have up to date received eighteen letters and jobs. Will say I could not be without THE AMERICAN ARTISAN."

Persistence in Advertising

In the expansion of business now bringing profit to so many manufacturers, advertisers who have made themselves regularly prominent in the past five years have been notable in reaping the rewards of persistent publicity.

Peters Cartridges

Peters Cartridges

The Best to Shoot are The Best to Sell!

Peters New Victor Shells

Loaded with
KING'S SMOKELESS

"They are The Best We Ever Used for Trap or Field."

So say C. R. Adams and C. O. Dixon, of Rockwell City, Ia., who killed deer with 3-dram King's Smokeless in NEW VICTOR SHELLS, having withdrawn the charge of bird shot and loaded buck shot.

June 9, 1899, Mr. Adams broke 276 out of 310 Targets with these loads.

Handy Book for Shooters and Sportsmen sent free to all applicants.

The Peters Cartridge Co.,

Government Square, Cincinnati, Ohio.

EASTERN BRANCH: T. H. KELLER, Manager, 80 Chambers Street, NEW YORK.

Peters Cartridges

Peters Cartridges

The Imperial Lighting System

PATENTS PENDING.

Economical, brilliant, durable, reliable and simple to operate. A light equal to an electric arc at a very low cost.

The Imperial Lighting System is far superior to the Electric Arc, being softer, whiter and absolutely steady. From a tank the gasoline is conveyed throughout an entire building through a flexible copper tube that can be put through crevices, around corners and concealed the same as electric wires, and as many lights as may be desired can be supplied from the same tank. The Imperial System burns common stove gasoline, gives a 1,200 candle power light, and one gallon of gasoline burns 16 hours.

All lamps are fully guaranteed, and are trimmed complete with full instruction as to installing and operating the system.

We also manufacture a complete line of Gravity and Air Pressure Lamps. Write for illustrated catalogue.

THE IMPERIAL GAS LAMP CO., Sole Manufacturers,
132-134 E. LAKE ST., CHICAGO, ILL., U. S. A.

W. J. BINKLEY, BELLEVILLE, KAN.
WRITES:

"I gain much valuable information from THE AMERICAN ARTISAN and would not think of running a tinshop without it."

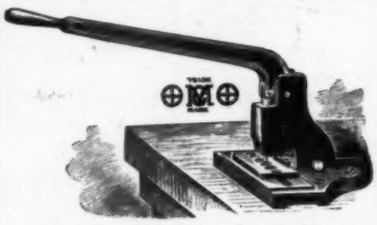
An index at your fingers' ends

No handling "dead" matter, nor searching over pages of crossed-off items, as with book records. No re-writing, no transfering. The Y and E Card System is a living record; new cards are put in exactly their proper place—old cards ("dead" matter) are taken out. By having plenty of guides the exact card you want can be gotten almost instantly. No matter what, nor how many, records you keep, the Card System will keep them better and quicker. Send for Cat. No. 27—

Yawman & Erbe Mfg. Co., Rochester, N. Y.

New York Chicago Boston St. Louis
Philadelphia Pittsburg Toronto
San Francisco Cleveland
Baltimore

Morrill's Bench Punch



Used by Metal Workers, Printers, Stationers, etc. Will punch 14 Gauge Metal.

Chas. Morrill,
270 B'way, New York City.

The Southern Railway
and
The Mobile and Ohio Railroad

through its Land and Industrial Department invite prospectors, investors, manufacturers and homeseekers to investigate propositions in all lines.

Come and see what splendid opportunities the South affords. Reading matter, maps and detailed information sent free upon application to

M. V. RICHARDS, Land and Industrial Agent, Washington, D. C.
W. L. HENDERSON, Agent, Land and Industrial Dept., St. Louis, Mo.
J. F. OLSEN, Agent, Land and Industrial Dept. 225 Dearborn St., Chicago.

J. R. West, Gas City, Ind.,
writes: "Please discontinue ad. for Tinner, as I am overwhelmed with applicants, and have had a man at work some time."

Iron Cut Nails.

Made of

IRON.

Better than Steel-Cut or Wire Nails.

Send for Prices.

Old Dominion Iron & Nail Works

Arthur B. Clarke, Prest. **Richmond, Va.**

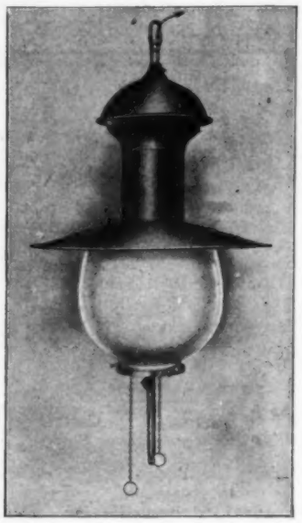
TACKS

TOWER M'F'G. CO.
ELM & FRONT STS.
CINCINNATI, O.
MANUFACTURERS

THE PHILADELPHIA LAWN MOWER CO.

3107, 3109 Chestnut Street,
PHILADELPHIA, PA.
U. S. A.
Send for Illustrated Catalogue.

HOMESEEKER EXCURSIONS
On First and Third Tuesdays in each month to
VIRGINIA,
Via NORFOLK & WESTERN RAILWAY.
For all information as to RATES and TICKETS and for LAND PAMPHLETS and descriptive matter, address **ALLEN HULL**, D. P. Agt., Columbus, Ohio.



THE
Wonderful Doran Lighting System

Equal in every way to an Electric Arc Light at a cost of about one-tenth as much.

It can be turned up or down at will by simply pulling a chain.

The gasoline is conveyed to the lamp through seamless wire tubing running from a tank situated outside of the building. The tubing is flexible and can be put through crevices, around corners, and concealed the same as an electric light wire.

As many lights as may be desired can be placed on one system.

We Give an Absolute Guarantee for One Year.

Write for catalogue and complete price list.

Acorn Brass Works,
Dept. H, 15-23 So. Jefferson St., Chicago, Ill.

Agents wanted in all territory where we are not represented. We protect our agents.

Gee Whizz.

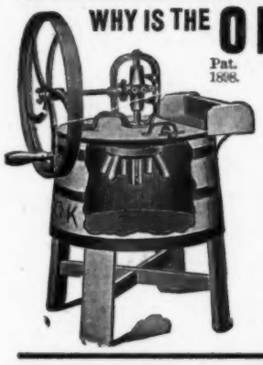
(Double reflex, and adjustable.) Washes in one minute what it takes any other machine 10 or 15 minutes.

Noted for its easy running, ease on clothing, and fast, unexcelled work. New Gee Whizz Machines are lined with galvanized metal, thus insuring them not to leak, and to stand any climate. Absolutely guaranteed to give entire satisfaction.

You want the exclusive agency.

Manufactured by

Capt. Randleman & Sons,
DES MOINES, IOWA.



WHY IS THE O K THE BEST ROTARY Washing Machine?

Pat. 1898.

BECAUSE

1.—It is the only Rotary Washer that has **Revolving Steel Ball Gearing**, reducing **the friction** and thus making machine so **light running** and almost **noiseless**.
2.—The tub is made of **Louisiana Red Cypress Lumber**, cherry finish; the legs are **solid with tub**, (not removable, breakable legs fastened with screws).
3.—The wheel turns right or left, pin wheel or dasher reverses automatically, turning the clothes back and forth through the hot soap-suds, and cleaning them without **rubbing** them to pieces.
4.—This washer is made by **experienced mechanics**, and will outlast any other washer on the market.
5.—The tub has a wringer box fastened with steel brackets.
6.—The lid on tub closes tight, **no escape of steam**.

MANUFACTURED BY
H. F. BRAMMER MFG. CO., Davenport, Iowa.

"It is true that advertising will not put merit into poor merchandise, but good merchandise often becomes poor for the want of good advertising."

—Some Essential Oils for Advertising.

We may live without poetry, music and art;
We may live without conscience, and live without heart;
We may live without friends, we may live without fads;
But business today cannot live without ads.—American Advertiser.

Geo. W. Brown, Jr., Hillsboro, Ill., writes: "You may kindly discontinue our WANTED TINNER adv. that you have so kindly carried for us the past three issues. I have received replies from Vermont to Dakota, and think that we have secured a good man."

Farwell, Ozmun, Kirk & Co.

WHOLESALE HARDWARE. St. Paul, Minn.

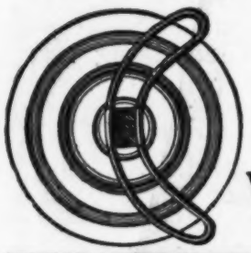
Favorite Stoves and Ranges,
Tinware and Tinners' Tools,
Gilt Edge Hardware Specialties,
Butcher Supplies,
Builders' Hardware, Sporting
Paints and Oils. Goods.

"Yankee" Drills

Sold by Leading Jobbers. Send for "Yankee' Tool Book.

North Bros. Mfg. Co., Philadelphia, Pa.

THE Peerless Flue Stopper



Steel wire springs instead of sheet iron stays.
Stays where you put it, and is absolutely soot and smoke proof.
Made either plain or decorated.
Send for miniature sample and prices.

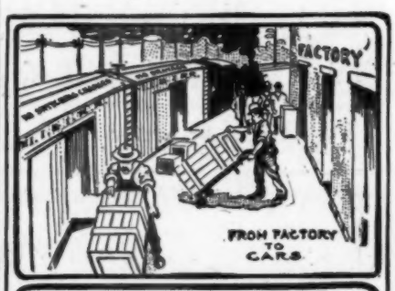
Welling Manufacturing Co.,
Columbus, O.

Standard Chain Company.

Chain of all Kinds.

Pittsburgh, Pa.

The Miller Catalogue Cabinet Co.
ROY MILLER, Pres. H. KELLY, Sec.
SYSTEMATIC FILING DEVICES
For Catalogues, Price Lists, Etc.
Box 49, 39-41 Cortlandt St.
ALMA CENTER, WIS. NEW YORK.
SEND FOR CIRCULARS.



Dividends

are paid out of the profits of a business. Stockholders expect dividends. Economic management creates profits. Shippers and manufacturers can pay larger dividends by being located on

The Indiana, Illinois & Iowa R. R.

WHY? *Because* if you were on its line there would be

No switching charges.
No teaming expense.
From one to five days' time saved in the receiving and shipping of your products.
This is worth looking into.
Your increased business means more earnings for the Railroad Company.
Your interests and ours become mutual.
Some desirable manufacturing sites can be had free of cost to you.
Write or call for further particulars.

The Indiana, Illinois & Iowa R. R.
573 The Rookery,
Chicago, Ill., U.S.A.

ASBESTOS SAD IRON.

ELEGANCE OF FINISH

cuts a big figure as an aid in selling an article, especially to ladies.

ASBESTOS Sad Irons are the best finished irons ever offered the trade.

They have many other points of superiority, which lack of space will not permit us to enumerate here

Our booklet describes them. Write for one. Postal brings it.

THE DOVER MANUFACTURING CO.
CANAL DOVER, OHIO.

Sleeve or Flouncing Sad Iron.

The Blunt Nose is so shaped as to insure perfection of work and perfect freedom from destruction of garments from snags, etc., as so often is the case with sharp pointed irons.

These irons should be in every household. They are an absolute necessity. These Irons are made in Two Sizes, 3 and 4 lbs. each, the bodies being plated with Heat-Proof Aluminum Enamel; face, sides, nose, and heel highly polished. A ready seller.

Blacklock Foundry,

South Pittsburg, Tenn.

The B. O. E.

(Best on Earth)

Sad Irons,
Potts Pattern.

This is the best finished and best iron ever made, and while it costs more than the common Potts iron, it is worth double the price asked for it.

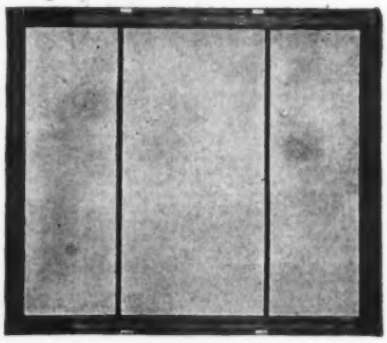
The Schreiber & Conchar Mfg. Co.,
Manufacturers of Hardware, Dubuque, Ia.

Lava Enameled Ware

is made from steel rolled especially for this purpose. It is covered with three coats of a very hard and elastic enamel, the surface of which is as smooth as the most delicate of china. The enamel is free from lead, antimony and arsenic.

Cleveland Stamping & Tool Co.
Cleveland, O.

If you wish to know why the sales of the "Flyer Window Screen" increased 6,000 dozen last season, write



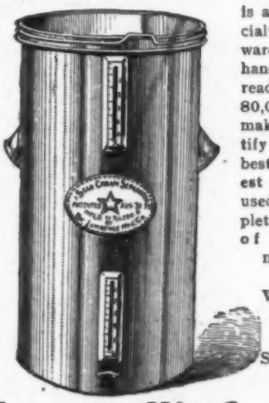
The A. J. Phillips Co.
FENTON, MICH.

THIS LOCK can neither be forced with a jimmy nor opened from the outside. It is as secure when set for ventilation as when closed, and in no instance has it failed to successfully resist the attack of Burglars, Porch climbers, and sneak thieves; can be put on without cutting frame or sash at moderate cost and is fully endorsed by all people who are protected by it. Send for booklet of photographed testimonials.

Send for catalogue.

Harlev Burglar Proof Ventilating Sash Lock Co.
92 La Salle St., CHICAGO.

Star Cream Separator



is a paying specialty for hardware dealers to handle. It is already in use by 80,000 butter makers, who testify that it is the best and cheapest device ever used for the complete separation of cream from milk

Write for Catalogue

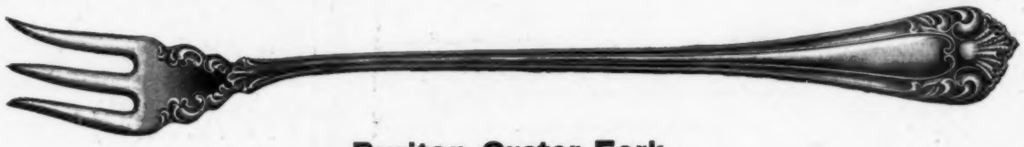
Satisfaction Guaranteed.

Lawrence Mfg. Co. TOLEDO, OHIO.
Please address Dept. C.

THE merchant who doesn't advertise is in a rowboat, pulling and steering and making no headway. The advertiser is in a steam launch, and has only to steer and keep his boat trimmed.—*Brattleboro (Vt.) Reformer.*

We Are Not In The Trust

We have no connection with any other "Rogers" Company, and guarantee our silver ware to strip as much silver as any "Rogers Brand" on the market.



Puritan Oyster Fork.

Send For Our New Catalogue.

Simeon L. and George H. Rogers Company,

P. O. Box 1205. - - HARTFORD, CONN.

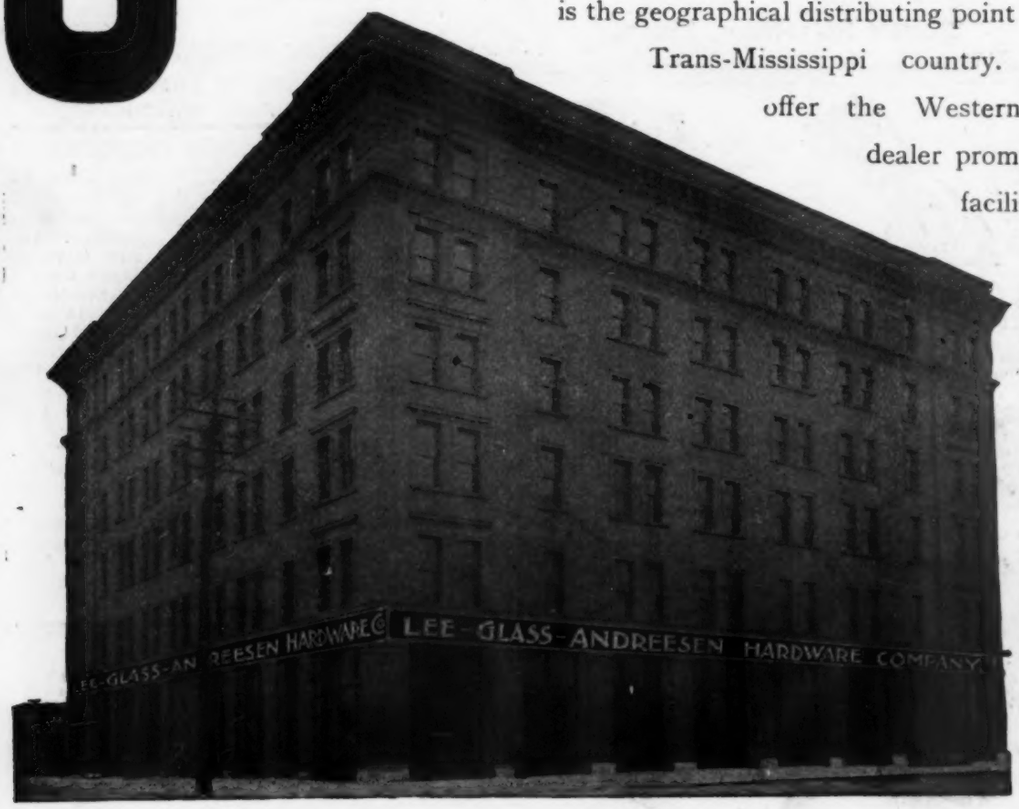
Factories: Hartford and Wallingford, Conn.

OMAHA

is the geographical distributing point of the great Trans-Mississippi country. We can offer the Western hardware dealer prompt shipping facilities that are absolutely beyond the reach of our competitors.

Our prices are right.

Our goods are made to meet Western requirements.



It is made of Steel.

White Tile Top.

Tin or Brass Scoop.

Brass Dial.

IMPROVED
YOUNG AMERICA SCALE.
BEST IN THE WORLD.

A most beautiful and attractive scale for all purposes. Beautifully enameled, ornamented and striped. Weighs 20 pounds by ounces. Occupies but little space. Is light and easily moved. It can be regulated by turning the brass screw on top. It is always ready and easily understood. It is a convenient scale to use and has no weights that may be lost. You can look this one in the face to prove its accuracy without looking for weights. Every scale examined before leaving the factory and warranted correct.

MANUFACTURED BY
AMERICAN CUTLERY CO., CHICAGO, ILL.

Tools for Sheet Metals

Combined Punch and Shear.

Tinsmiths' Roofers' Cornice Makers' } TOOLS

SHEARS, PRESSES and DIES, PUNCHES, ROLLS

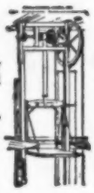
Made by
Niagara Machine and Tool Works
BUFFALO, N. Y.
Send for Catalogue A

The Jersey Cream Separator

takes less than an hour to separate cream from milk. It is beyond a doubt the most simple, practical and reliable separator made. It is sold only to the trade. Prices will be furnished on application.

The Galesburg Cornice Wks.,
GALESBURG, ILL.

ELEVATORS



Improved, Quick and Easy Rising Steam and Hand Power.

Kimball Bros. Co.
1061 9th Street
Council Bluffs, Iowa
Omaha Branch,
108-110-112 North 11th St.

Standing Seam and Slate Roof
(Patented)
Snow Shoe Irons

Patented.

No snow rails need be used unless desired. The lugs clinch through the seam easily but securely. Send for catalogue.

BERGER BROS. CO.
MFRS. OF TINNERS' HARDWARE AND ROOFERS' SUPPLIES
PHILADELPHIA. U. S. A.

Powers' Chimney Top
BEST ON EARTH.

Best cover, base, bearing, mountings, and brace. Last longest, easiest made, and makes least noise. Used with gal. sheet-iron base. Iron mountings sold by Leading Jobbers with pattern free for cover and vane.

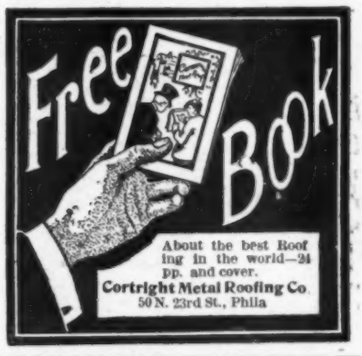
Address
Powers Bros.
Sole owners,
STREATOR, ILL.

SPERRY'S CALDRONS....

Full measure, guaranteed perfect, original patterns, with metal distributed where it is needed. Many Caldrons are made from our castings as patterns. They are inferior to original, as they have light bottoms and heavy sides and hold less.

D. R. SPERRY & CO.,
HOLLOW-WARE FOUNDERS,
BATAVIA, ILL.

TWELVE SIZES ALWAYS IN STOCK.



Measuring Tapes

Steel, Metallic, Linen, etc. Our Goods are Recognized as the Best. Tinners' Rules, Magic Pattern Rules, etc. Send for Catalogue and Mention The American Artisan.

Lufkin Rule Co.
SAGINAW, MICH.

Don't Be Deceived but insist on

McClure's Genuine Charcoal Iron Redipped Roofing Tin.

McCLURE & CO.,
Manufacturers of Tin Plate.

PITTSBURGH, PA., 211, 213 & 215 Second Ave.
PHILADELPHIA, PA., 115 North 7th Street.

JIM'S TOASTER.

toasts bread on a gas or gasoline stove.

It saves gas and will toast quicker and better than can be done on any other toaster. The people want them. The wire cone is heated red-hot in one minute. The bread is then placed around in the wire holders. Four slices can be beautifully toasted in two minutes.

HARKINS & WILLIS,
ANN ARBOR, MICH.

Just a Little Higher

in price, but so much

Higher in Quality

that the great majority of dealers prefer to sell

Caldwell Sash Balances

They can recommend them with clear conscience. Write for catalog.

Caldwell Mfg. Co.
2 Jones St., Rochester, N. Y.

COKE PLATES

14x20 - 20x28 90-95-100 lbs. IC-IXL-IX

GOLDEN STAR COLD ROLLED STEEL SHEETS

16 to 28 gauge, regular sizes.

IMMEDIATE SHIPMENT.
Mills, Pittsburgh District.

GOLDEN STAR AND NEW PROCESS GALVANIZED SHEETS

PROMPT DELIVERY. Mills { Wheeling, W. Va. / Niles, O.

The J. M. & L. A. Osborn Co.
COLUMBUS. CLEVELAND.

STEVENS

A BIT OF HISTORY

Established in 1864.
Incorporated in 1886.
Floor space in 1895—17,000 feet.
Employees in 1895—44 people.
1895, New Management—New Methods.
Floor space in 1898—34,000 feet.
Employees in 1898—150 people.
Floor space in 1901—271,000 feet.
Employees in 1901—900 people.
On December 3rd, 1901—Another factory containing 42,000 feet added, which will increase our output of Rifles 50 per cent.
To-day the largest producers of Fire Arms for sporting purposes in the world.

NEED WE SAY MORE?

All Leading Jobbers Carry our ARMS. Send for Catalog.

J. Stevens Arms & Tool Co.
245 BROADWAY
CHICOPEE FALLS, MASS.

The "Globe" Ventila
In Brass, Copper, Galvanized and with Glass Tops for Sky purposes.

For Perfectly Ventilating
Schools, Churches, Halls, Mills, Fa and Audience Rooms of Every Charac

Smoky Chimneys Cured.
"Globe" Ventilated Ridges. for Pamphlet.

Manufactured by
Globe Ventilator Co., Troy, N

Atkins Saws

Are.... Trade Winners!

They are the FAVORITES Of the Camp.
UNEEDUM in your business.

The Saws that made Indianapolis Famous.

E. C. ATKINS & Co.
Factories:
Indianapolis, Ind.

Branch Houses:
New York City, 64 Reade St.
Memphis, Tenn. - Atlanta, Ga.
Minneapolis - Portland, Ore.